New York State
Department of Environmental Conservation

Division of Lands & Forests

Vanderwhacker Mountain Wild Forest

Unit Management Plan/Environmental Impact Statement

Essex County: Minerva, Newcomb, North Hudson, Schroon
Warren County: Chester, Johnsburg
Hamilton County: Indian Lake

April 2005

George E. Pataki
Governor

Denise M. Sheehan
Acting Commissioner

Lead Agency:
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DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

DENISE M. SHEEHAN
ACTING COMMISSIONER

M E M O R A N D U M

TO: The Record

FROM: Acting Commissioner Denise M. Sheehan

DATE: APR 07 2005

SUBJECT: Vanderwhacker Mountain Wild Forest Final Unit Management Plan/FEIS (Final UMP/FEIS)

The Final UMP/FEIS for Vanderwhacker Mountain Wild Forest has been completed. The Final UMP/FEIS is consistent with the guidelines and criteria of the Adirondack Park State Land Master Plan, the State Constitution, Environmental Conservation Law, and Department rules, regulations and policies. The Final UMP/FEIS included management objectives and a five year budget and is hereby approved and adopted.

Denise M. Sheehan
Acting Commissioner

4/7/05
Date

RESOLUTION AND SEQRA FINDINGS
ADOPTED BY THE ADIRONDACK PARK AGENCY
WITH RESPECT TO
VANDERWHACKER MOUNTAIN WILD FOREST
UNIT MANAGEMENT PLAN

March 11, 2005

WHEREAS, Section 816 of the Adirondack Park Agency Act directs the Department of Environmental Conservation to develop, in consultation with the Adirondack Park Agency, individual management plans for units of land classified in the Master Plan for Management of State Lands and requires such management plans to conform to the general guidelines and criteria of the Master Plan; and

WHEREAS, in addition to such guidelines and criteria, the Adirondack Park State Land Master Plan prescribes the contents of unit management plans and provides that the Adirondack Park Agency will determine whether a proposed individual unit management plan complies with such general guidelines and criteria; and

WHEREAS, the Department of Environmental Conservation has prepared a unit management plan for the Vanderwhacker Mountain Wild Forest; and

WHEREAS, this action is a Type I action pursuant to 6 NYCRR Part 617 for which the Department of Environmental Conservation is the lead agency and the Adirondack Park Agency is an involved agency; and

WHEREAS, a final environmental impact statement, dated February 2005, was accepted and noticed in the Environmental Notice Bulletin by the Department of Environmental Conservation as of March 9, 2005; and

WHEREAS, the Department of Environmental Conservation has consulted with the Adirondack Park Agency staff in the preparation of the proposed plan; and

WHEREAS, the Agency is requested to determine whether the final Vanderwhacker Mountain Wild Forest Unit Management Plan, dated February 2005, is consistent with the Standards and Guidelines of the Adirondack Park State Land Master Plan; and

WHEREAS, the Adirondack Park Agency has reviewed the proposed Vanderwhacker Mountain Wild Forest Unit Management Plan; and

WHEREAS, the design of existing, long-standing drive-in campsites and group campsites must meet the guidelines and criteria of the State Land Master Plan; and

WHEREAS, the Department has committed to continued consultation with the Agency on the development of site design guidelines and criteria, and to develop a baseline inventory and assessment of all established campsites; and

WHEREAS, the Department has committed, in consultation with the Agency, to implement site design guidelines and criteria for roadside campsites so that they can be renovated or relocated and conform to the guidelines and standards of the State Land Master Plan; and

WHEREAS, the site guidelines and criteria will be submitted for Agency review in future Wild Forest unit management plans; and

WHEREAS, the Department and the Agency have committed to develop site design guidelines and criteria to conform to Americans with Disabilities Act guidelines; and

WHEREAS, the Department will consult with the Agency on the development of specific routes for snowmobile trails and all future construction and maintenance activities involving wetlands in accordance with Article 24 wetlands regulations, which review process will minimize impacts on the wetlands resources and Wild Forest character of the Unit; and

WHEREAS, the Department has committed to initiate a Limits of Acceptable Change study to evaluate user impacts on campsite areas and which will provide an opportunity to improve management of appropriate recreational opportunities and assist the Department and Agency in assessing impacts and selection of specific management actions; and

WHEREAS, the Department has committed to collect and analyze use data on Muller, Oliver and Cheney Ponds in order to increase the understanding of the carrying capacity and use of these water bodies and their ability to withstand public use and to project user impacts of water access proposals at these and other locations;

NOW, THEREFORE, BE IT RESOLVED, that pursuant to Section 816 of the Adirondack Park Agency Act, the Adirondack Park Agency finds the Vanderwhacker Mountain Wild Forest Unit Management Plan, dated February 2005, conforms with the general guidelines and criteria of the Adirondack Park State Land Master Plan; and

BE IT FURTHER RESOLVED, that the Adirondack Park Agency finds pursuant to 6 NYCRR Part 617.11 that the management actions contained therein are:

1. Intended to ensure the management of the Unit complies with all applicable rules, regulations, policies, guidelines, laws, constitutional provisions and the Adirondack Park State Land Master Plan. (FEIS p. 85)

2. Intended to permit and encourage recreational use levels consistent with the protection of the Unit’s natural resources and character. (FEIS p.98)

3. Intended to preserve and protect wetland community vegetation and to minimize the amount of wetland disturbances and impacts caused by the construction, maintenance and use of structures and improvements. (FEIS p. 82)

4. Intended to protect species and ecological communities identified as rare, threatened and endangered. (FEIS p. 82)

5. Intended to ensure compliance with the Americans with Disabilities Act by improving access and creating opportunities for people with disabilities. (FEIS p. 99)

6. Intended to prevent the spread of invasive species. (FEIS p. 82)

7. Intended to perpetuate, support and expand a variety of wildlife recreational opportunities, including wildlife observation and photography, and sustainable hunting and trapping pursuits. (FEIS p. 84)

8. Intended to manage wildlife and fisheries consistent with Wild Forest guidelines, to minimize impacts on the fisheries resource and maintain the diversity of coldwater and warmwater fish populations in the Unit. (FEIS p. 84)

9. Intended to improve the monitoring of public use, provide a diverse range of camping opportunities, accurately monitor and quantify current levels of camping use, provide a trail system that offers the public appropriate opportunities for desired levels of permissible use, and protect the natural resources of the Unit. (FEIS pp. 85, 87, 91 and 98)

10. Intended to insure that campsite and lean-to locations comply with guidelines of the State Land Master Plan. (FEIS p. 91)

11. Intended to comply with State Land Master Plan guidelines concerning use of All-Terrain Bicycles in Wild Forest and to provide appropriate All-Terrain Bicycle opportunities that are desirable by the public and consistent with the protection of natural resources. (FEIS p. 93)

12. Intended to recognize the historic and cultural significance of the Vanderwhacker Mountain fire tower and associated facilities, to affect its restoration and allow the public to access and appreciate it in a safe manner. (FEIS p. 97)

13. Intended to address natural and cultural resource management issues through the Limits of Acceptable Change approach to recreation management. (FEIS p. 58)

BE IT FURTHER RESOLVED, that consistent with the social, economic and other essential considerations, from among the reasonable alternatives, the proposed Vanderwhacker Mountain Wild Forest Unit Management Plan seeks to minimize or avoid adverse environmental effects to the maximum extent practicable, including the effects disclosed in the environmental impact statement; and

BE IT FINALLY RESOLVED, that the Adirondack Park Agency authorizes its Executive Director to advise the Commissioner of Environmental Conservation of the Agency's determination in this matter.

Ayes: Whaley, Chair; Mezzano; Rehm; Townsend; Ulrich; Wray; Beach (DED); Buchanan (DEC); Hoffman (DOS)

Nays: None

Abstentions: None

Absent: Kissel; Roberts

PREFACE

The Vanderwhacker Mountain Wild Forest Area Unit Management Plan has been developed pursuant to, and is consistent with, relevant provisions of the New York State Constitution, the Environmental Conservation Law (ECL), the Executive Law, the Adirondack Park State Land Master Plan, Department of Environmental Conservation ("Department") rules and regulations, Department policies and procedures and the State Environmental Quality and Review Act.

Most of the State land which is the subject of this Unit Management Plan (UMP) is Forest Preserve lands protected by Article XIV, Section 1 of the New York State Constitution. This Constitutional provision, which became effective on January 1, 1895 provides in relevant part:

> 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, or shall the timber thereon be sold, removed or destroyed.

ECL §§3-0301(1)(d) and 9-0105(1) provide the Department with jurisdiction to manage Forest Preserve lands, including the Vanderwhacker Mountain Wild Forest Area.

The Adirondack Park State Land Master Plan ("Master Plan") was initially adopted in 1972 by the Adirondack Park Agency ("APA"), with advice from and in consultation with the Department, pursuant to Executive Law §807, now recodified as Executive Law §816. The Master Plan provides the overall general framework for the development and management of State lands in the Adirondack Park, including those State lands which are the subject of this UMP.

The Master Plan places State land within the Adirondack Park into the following classifications: Wilderness; Primitive; Canoe; Wild Forest; Intensive Use; Historic; State Administrative; Wild, Scenic and Recreational Rivers; and Travel Corridors. The lands which are the subject of this UMP are classified by the Master Plan and described herein as the Vanderwhacker Mountain Wild Forest Area.

For all State lands falling within each major classification, the Master Plan sets forth management guidelines and criteria. These guidelines and criteria address such matters as: structures and improvements; ranger stations; the use of motor vehicles, motorized equipment and aircraft; roads, jeep trails and State truck trails; flora and fauna; recreation use and overuse; boundary structures and improvements and boundary markings.

Executive Law §816 requires the Department to develop, in consultation with the APA, individual UMPs for each unit of land under the Department's jurisdiction which is classified in one of the nine classifications set forth in the Master Plan. The UMPs must conform to the guidelines and criteria set forth in the Master Plan. Thus, UMPs implement and apply the Master Plan's general guidelines for particular areas of land within the Adirondack Park.

Executive Law §816(1) provides in part that "(u)ntil amended, the master plan for management of state lands and the individual management plans shall guide the development and management of state lands in the Adirondack Park."

It is important to understand that the State Land Master Plan has structured the responsibilities of the Department and the Agency in the management of State lands within the Adirondack Park. Specifically, the APSLMP states that:

"..... the legislature has established a two-tiered structure regarding state lands in the Adirondack Park. The Agency is responsible for long range planning and the establishment of basic policy for state lands in the Park, in consultation with the Department of Environmental Conservation. Via the master plan, the Agency has the authority to establish general guidelines and criteria for the management of state lands, subject, of course, to the approval of the Governor. On the other hand, the Department of Environmental Conservation and other state agencies with respect to the more modest acreage of land under their jurisdictions, have responsibility for the administration and management of these lands in compliance with the guidelines and criteria laid down by the master plan."

In order to put the implementation of the guidelines and criteria set forth in the APSLMP into actual practice, the DEC and APA have jointly signed a Memorandum of Understanding concerning the implementation of the State Land Master Plan for the Adirondack Park. The document defines the roles and responsibilities of the two agencies, outlines procedures for coordination and communication, defines a process for the revision of the APSLMP, as well as outlines procedures for State land classification, the review of UMPs, state land project management, and state land activity compliance.

No Action Alternative or **Need for a Plan**

From a legal perspective, the No Action alternative is not an option. Section 816 of the Adirondack Park Agency Act (Executive Law) requires the Department of Environmental Conservation to develop, in consultation with the Adirondack Park Agency (APA), individual unit management plans (UMPs) for each unit under its jurisdiction classified in the Adirondack Park State Land Master Plan (APSLMP). In addition a UMP serves as a mechanism for the Department to study and identify potential opportunities for providing access to the Forest Preserve for persons with disabilities in accordance with the Americans with Disabilities Act (ADA of 1990). The UMP also serves as an administrative vehicle for the identification and removal of nonconforming structures as required by the APSLMP.

From an administrative perspective, the No Action alternative is not an option, because the UMP provides necessary guidance for staff to manage the lands of the unit in a manner that is most protective of the environment while at the same time providing the most enjoyable outdoor recreation opportunities for the public. Without the UMP, the sensitive environmental resources of the unit could be impacted negatively. It is highly likely that public enjoyment of such impacted resources would decrease. Management of the lands of this Unit via a UMP allows the Department to manage use of the lands in order to improve public use and enjoyment of the area, avoid user conflicts, prevent over-use of the resource (e.g., through trail designations, access restrictions, placement of campsites and lean-tos in relation to a sensitive resource, etc.), and allows for public input into decision-making.

Alternatives to activities proposed in the UMP will be found in Section IV of this document, beginning on page 81 and in Appendix J.

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SECTION I. INTRODUCTION:

A. Area Overview (refer to map in Appendix K)

The Vanderwhacker Mountain Wild Forest (VMWF) is located in the central Adirondack Park within the towns of Minerva, Newcomb, Schroon Lake, North Hudson (Essex County), Johnsburg, Chester (Warren County), and Indian Lake (Hamilton County). The unit[1] is located within the Hudson River watershed and the lesser watersheds of the Boreas and Schroon rivers. The unit is made up of almost 2 dozen non-contiguous parcels, covering 91,854 acres in area and has 204 miles of boundary line. The bulk of the unit is made up of a single parcel of approximately sixty thousand acres, located mainly within the town of Minerva. The remainder of the parcels range in size from a hundred acres to more than six thousand acres.

The planning area is bounded on the north by the High Peaks Wilderness Area (HPWA), on the east by Hoffman Notch Wilderness Area (HNWA) and Schroon Lake, on the south by State Route 8 and the Siamese Ponds Wilderness Area (SPWA), and on the west by the Hudson Gorge Primitive Area (HGPA) and the westerly Newcomb town line.

The Vanderwhacker Mountain Wild Forest also includes 6,110 acres of land which were gifted to the State for silvicultural research pursuant to ECL §9-0107(2). ECL §9-0105(1) provides the Department with jurisdiction over such lands.

Within the planning area, and not subject to this UMP, are privately-owned lands most of which are classified as "Resource Management" and "Rural Use" by the Adirondack Park Agency. Finch, Pruyn & Company, Inc. is the largest private landowner in the area. There are at least two large mine sites in the vicinity of the unit: Barton Mines near Gore Mountain and the National Lead (Kronos, Inc.) mines at Tahawus. There are also several private "rod & gun" clubs with small to moderate land holdings: Northwoods Club, Moose Pond Club, and Beaver Meadow Club to name a few. In addition, there are two children's summer camps on the shores of Balfour Lake, which use VMWF for education and recreation.

Also within the Planning Area are the Adirondack Mountain Reserve Easement (AMR), Samuel Bloomingdale Easement, and Upper Works Easement. They will not be addressed in this UMP, because these easements do not border VMWF state lands, but rather have trail connections with and border the HPWA and the Dix Mountain Wilderness Area (DMWA). Thus, the easements have a far greater impact on the management of these two Wilderness Areas, and management actions relative to the easements are addressed in the HPWA and DMWA UMP's.

[1]Throughout this text, the term "unit" will be used to describe the state-owned lands comprising the Vanderwhacker Mountain Wild Forest, whereas the phrase "planning area" will be used to refer to the public as well as private lands in the area.

B. Unit Geographic Area

The unit is covered by the following U.S.G.S. quadrangle maps:

7½' x 15' series	7½' x 7½' series
Blue Ridge	Chestertown
Dutton Mountain	North Creek
Mount Marcy	
Newcomb	
Santanoni Peak	
Schroon Lake	
Thirteenth Lake	

C. General Location

State Route 28N between Newcomb and Minerva runs generally north-south and divides the Vanderwhacker Mountain Wild Forest in half. It is the major road providing access to the unit. Other major roads providing access to the unit include: the Blue Ridge Road (or Boreas Road) which provides access to the northern portion of the unit; Hoffman Road (or Irishtown Road or Carl Hill Road) and Trout Brook Road (or Leonardsville Road), which provide access to parcels in the town of Schroon Lake and in the vicinity of Olmstedville; State Route 28, which provides access to parcels in the towns of Johnsburg and Indian Lake.

Several communities are either surrounded by or adjacent to the unit. These include the hamlets of Newcomb, Minerva, Olmstedville, Loch Muller, Irishtown, North Creek and North River.

The unit is in propinquity to several other Forest Preserve units including the High Peaks Wilderness Area to the north, the Dix Mountain Wilderness Area (DMWA) to the northeast, the Hoffman Notch Wilderness Area to the east, the Siamese Ponds Wilderness Area to the south, and the Hudson River Gorge Primitive Area to the west. The unit also borders several state-owned or state-run areas including Gore Mountain Ski Area, Lake Harris Campground, Eagle Point Campground, Scaroon Manor Campground, Camp Santanoni Historic Area, and the APA's Visitor Interpretive Center at Newcomb.

D. Acreage

Overall size of the unit is approximately **91,854** acres. The majority of the unit is comprised of a considerable portion of Townships 26 and 30, much of Thorn's Surveys of Township 25 and 27, portions of Bailey's and Dominick's Patents in Township 25, and a over a dozen lots in the eastern portion of Township 14.

Large non-contiguous parcels scattered around the main parcel include: an approximately 5,800 acre parcel directly adjacent to the HPWA encompassing the higher elevations of the North River Mountains; an approximately 5,000 acre parcel directly adjacent to the Camp Santanoni Historic Area (CSHA), some of which was historically part of the Santanoni Preserve; an approximately 2,400 acre parcel including Sand Pond Mountain adjacent to the HNWA, which was gifted to the state from Finch, Pruyn & Company, Inc. in the 1960's; a roughly 6,000 acre parcel in the Towns of Schroon and Minerva surrounding Bigsby, Oliver and Muller Ponds; an approximately 450 acre parcel in the Town of Schroon on the north end of Horseshoe Pond; a roughly 4,000 acre parcel in the Town of Schroon in the Alder Brook drainage; an approximately 4,000 acre parcel directly adjacent to Gore Mountain Intensive Use Area.

Smaller non-contiguous parcels are located in:
Hoffman Township
- portions of Lots 35 and 36
- southeast corner of Lot 38
- portions of Lots 86 through 90

Township 12
- small portions of Lots 134, 135, and 142

Township 14
- Lot 56 of Pond's Survey

Township 24
- Lot 25

Township 25
- the majority of Lot 22 of Bailey's Patent
- western half of Lot 37 of Bailey's Patent
- the southern half of Lot 46 of Dominick's Patent

Township 27
- Lot 41 of Thorn's Survey

The town by town and county by county breakdown of VMWF acreage is as follows:

County/Town		**Acreage**
Essex County (85,542)		
	Minerva	51,010
	Newcomb	18,651
	North Hudson	8,383
	Schroon	7,498
Warren County (6,096)		
	Johnsburg	4,915
	Chester	1,181
Hamilton County (216)		
	Indian Lake	216

E. Unclassified Parcels

The APA is required by law to assign a classification (i.e., "Wilderness", "Wild Forest", etc.) to state lands within the Adirondack Park. This occurs periodically as lands are acquired and usually results in relatively small areas that may remain unclassified for a short time following acquisition. There are currently two unclassified parcels within the Vanderwhacker Mountain Wild Forest planning area. One is located in the Town of Minerva on the shores of Balfour Lake. It is a 53-acre parcel that was purchased in 2000. The parcel abuts VMWF land and it is expected that it will be classified as "Wild Forest." In anticipation of its ultimate classification to "Wild Forest", the structures that were located on it have been removed. This UMP proposes construction of a hand carry canoe launch on this property. An easement for public travel by foot across private property at the north end of Balfour Lake exists so that the public may access that portion of this recently purchased property on the west side of the lake.

The second unclasssified parcel is located within the Town of Johnsburg on the right bank of the Hudson River (T&C Township 24, portions of Lots 22 and 23). It is an approximately 80-acre parcel, acquired in 2003. This parcel does not border any other state land.

The time frame for the classification procedure is not firm, but it is likely the above classifications will be complete within the next two years.

F. General Access

In addition to the roads listed in section C. above, there are several other roads that provide access to the unit for the automobile-traveling public. These include Moose Pond Road, Northwoods Club Road, Fourteenth Road, John Brannon Road, Hewitt Road, and Cheney Pond Road in the Town of Minerva, Horseshoe Pond Road, Beech Hill Road, Charley Hill Road, Thilo Road, and Charley Hollow Road in the town of Schroon Lake, State Route 9 and Old Schroon Road in the town of Chester, Barton Mines Road in the town of Johnsburg, and the beginning of Newcomb Lake Road in the town of Newcomb. Many, but not all of the above are town and county roads. A detailed location description of these roads will not be included here, as they are more easily located using the accompanying map, as well as Essex County and Warren County highway maps.

Vanderwhacker Mountain Wild Forest can also be accessed via the Hudson River, the Boreas River, and several small lakes and ponds including: Harris Lake, Balfour Lake, Bullet Pond, Hewitt Pond, Bigsby Pond, and Oliver Pond.

Approximately 70 million people live within a day's drive of the unit. Nearby population centers include the city of Glens Falls (45 miles), the city of Plattsburgh (65 miles), the urban areas of the Capitol District (90 miles), Montreal (120 miles), and New York City (230 miles).

G. History

The area around Vanderwhacker Mountain Wild Forest is rich with history, which in the interest of brevity cannot be discussed here. Only some incidents that relate directly to the development of the unit will be presented here, and in a much abbreviated fashion. For an in-depth look into the local history, the reader is referred to several useful sources, including a 1967 publication by the Minerva Historical Society, Watson's 1869 History of Essex County, Smith's 1885 History of Essex County, and others listed in the bibliography of this document.

Place Names

Vanderwhacker Mountain Wild Forest is obviously named after the mountain at its heart, but it is no longer clear for whom the peak was originally named. Some believe it was named after an old-time pioneer, who lived at the base of its northern slopes, perhaps along the Old Military Road or in the area of the Vanderwhacker snowmobile trail (currently closed). It is also quite possible that the mountain's name is derived from a corruption of the local surnames Vanderwarker and/or Vanderwalker, especially since there is some confusion as to the proper spelling. The mountain appears on most modern maps as "Vanderwacker" or "Vanderwhacker." It is quite possible that early mapmakers mistook the second "r" in "Vanderwarker" for a "c." It is not known for sure how the "h" may have entered the spelling, although it may have been due to Verplanck Colvin's spelling in his survey notes as "VanDeWhacker." Incidentally, this is how it also appears on many maps from the late 19th century.

Much of the derivation of the names of other geographical features of the unit is even less clear. Many features are probably named after local individuals and families as hinted at through old census records and maps, but direct evidence is hard to come by. Examples of such features include Merrill's Hill, Snyder Hill, Bigsby Pond, Oliver Pond, Muller Pond, Kellogg Mountain, and Kay's Hill. Conversely, the derivation of the names of a number of features in and around the unit is somewhat clearer and is listed below:

1. Moxham Mountain, Moxham Pond - named after Robert Moxham, who surveyed Dominick's Patent in 1798, and supposedly fell from the cliffs and died. The mountain was originally named Jones Mountain after another surveyor of the time. Verplanck Colvin refers to the mountain as Maxham, which might explain why the highest peak appears on modern maps as Maxam.
2. Roosevelt Hill - on the Newcomb-Minerva town line, may have been named to commemorate Theodore Roosevelt's midnight flight from Tahawus to North Creek following the assassination of President McKinley. The story goes that McKinley died at about the same time Roosevelt passed this hill.
3. Rist Mountain - in the North River Mountains, is named for Ernest Rist, Newcomb Town Supervisor from 1941 to 1959. The North River Mountains probably derive their name from the fact that they are visible from the upper Hudson River, which has also been referred to as the North River over the years.
4. Hewitt Pond, Hewitt Eddy – Sheldon B. Hewitt, a well-known guide, lived in a cabin on the west shore of the pond in the mid-1800's.
5. Burroughs Cave - named for John Burroughs, renowned naturalist and author of *Wake-Robin*, who visited the cave on a trip to the Adirondacks in 1863.
6. Cheney Pond - named for John Cheney, a local guide who lived in the Tahawus area in the mid-19th century. Some believe this was the pond at which he accidentally shot himself, although there are three locally that bear his name. Cheney Cobble in the North River Mountains is presumably named after him, as well.
7. Balfour Lake - used to be called Long Pond, but in April of 1835, John and Ellen Balfour moved to Minerva from Scotland and purchased 100 acres on the pond for $95. Coincidentally, the word "balfour" means "beautiful vale" in Scots, which might lead many to comment that it is an apt description of the watery depression.
8. Barnes Pond - might be named for the Barnes family of which Wesley Barnes, state assemblyman from Olmstedville, who championed the legislative bill that created the Forest Commission (which later became DEC) in 1885, was a member.

Logging History

In the mid-19th century, harvesting of mostly white pine, red spruce, and in some locales, hemlock occurred throughout the southern Adirondacks, and often took place on lands in close proximity to water courses, because the logs could be easily transported down rivers and streams. During this time period, softwoods were harvested from private lands that would later become part of VMWF in areas along the Hudson River, Boreas River, Minerva Stream, and Vanderwhacker Brook. Hardwoods were not generally harvested, because profitable markets did not exist for them at the time, and because they could not be transported as easily (they don't float as well as softwood logs). In fact, hardwoods were generally only harvested in the conversion of forests to farmlands and used to make charcoal and potash in order to subsidize that land clearing. Consequently, much of the lands that would later make up interior sections of VMWF remained relatively untouched by logging at that time. However, softwood logging continued over the latter half of the 19th century, and eventually reached most areas of VMWF before (or in between) State ownership. Laws of the time required the State to bid for lands at tax sale that had no other bidders. Prior to the creation of the Forest Preserve, the State would acquire such lands and later attempt to sell them. In between State ownership, these lands might be logged. This explains why many Forest Preserve lots were acquired by the State several times.

In some cases, even State ownership did not preclude harvesting of some State lots. Because of tax laws of the time, it was not uncommon for individuals to challenge the State's title to lands acquired through tax sales and win. This often resulted in further logging and then abandonment of these lots. After such abandonment the land would go up for bid at tax sale and would be re-purchased by the State. Many viewed the problematic tax law as a state subsidy for the logging industry. Several individuals, such as George Ostrander, P. J. Marsh, and George Underwood became masters at acquiring title to land the State thought it owned. In fact, land records of the time show that many VMWF lots in Townships 26 and 27 in the vicinity of Vanderwhacker Mountain were acquired from Ostrander, Marsh, and/or Underwood during the turn of the 19th and 20th centuries. It is quite likely that some of these lots were lost through title challenges and logged during this time.

The claim has been made by some that single-log river-driving originated in the Adirondacks, with the Hudson River being one of the well-known main routes. The Boreas River, which flows through the middle of the unit, served as a route initially for sawlogs and later for pulp bolts making their way to the Hudson and eventually to the softwood mills in Glens Falls. Reminders of this logging history are still evident on the unit in many places. For example, the old abutments of Brace Dam on the Boreas River north of the Blue Ridge Road are easily discernable. Similarly, Lester Dam, further south along the Boreas, was last used to transport logs to mill in 1949 and is even more conspicuous. In addition, many smaller bodies of water also show remnants of dams that may have been used in the early days of logging, such as Vanderwhacker Stillwater on Vanderwhacker Brook and Wolf Pond. The system of flush dams served to bring logs to the Hudson and on to Glens Falls in a journey that in some cases took two years to complete.

Fires often followed logging and as a result, portions of the Adirondacks were consumed by fire around the turn of the 19th and 20th centuries. Generally smaller fires occurred in VMWF, evidence of which can still be seen around Vanderwhacker Mountain as well as in the vicinity of the Blue Ridge Road. One of the later large scale fires occurred in the early 1930's in the North River Mountains, and probably helped lead to eventual state acquisition of 2,150 acres in that area in 1936.

Tanning Industry

Harvesting hemlock bark for the production of chemicals in the tanning of leather was an important industry in the area around VMWF in the mid-19th century. As a result, much of the accessible hemlock of VMWF was cut during this period, the logs being left in the woods to rot, and the bark sent to several tanneries in the immediate area, including Olmstedville, Pottersville, and Schroon Lake. In fact, the hamlet of Olmstedville gets its name from Sanford and Levi Olmstead, who built the Alpine Tannery there in 1840. The tannery, which burned down in 1867, was said to have consumed bark at five thousand cords per annum.

In 1869, Winslow Watson described the industry: "In the Towns of Schroon, Minerva, and North Hudson, this business is now the predominant and a highly important industrial pursuit. The vast hemlock forests, which spread over that region, afford an abundant and accessible material for those works."

Mining

The immediate area surrounding Vanderwhacker Mountain Wild Forest also has a rich mining history. Most of the mining has taken place on neighboring private land, though remnants of the industry's history may be found in a few places on VMWF.

Although not located on VMWF, the mining operation to have the most obvious impact on the unit has been the MacIntyre Mines at Tahawus. Originally, the mines concentrated on the production of iron ore. However, the ore was found to have copious quantities of an impurity, making iron extraction more costly. This impurity was later identified as titanium and became significant in the early 1940's as the US was drawn into World War II. In order to extend the D&H railroad tracks from the hamlet of North Creek to the titanium mines at Tahawus, the federal government appropriated VMWF land along the Boreas River and Vanderwhacker Brook and the railroad was constructed. Regular railroad service along these tracks has since been discontinued, but the tracks remain privately owned. This railroad route was not the first to be proposed through the unit in order to reach the Tahawus mines. Near the end of the 19th century, a route was proposed from Crown Point to parallel the Carthage Road (modern-day Blue Ridge Road) through parts of Township 30 near Wolf Pond and Vanderwhacker Pond. When Township 30 was sold to the state, an exception was made for the reservation of a 4-rod (66 ft.) right-of-way through certain lots for the construction of a railroad. However, plans for the railroad never got much further and it was never built.

There are two known sites on the unit where iron ore was mined. In the late 1860's, the Minerva Iron Company operated a mine on Green Mountain, also known as Orebed Mountain. Construction of a forge on nearby private land along Minerva Stream was begun soon after. The company may also have operated a mine in the northern reaches of the Town of Minerva; the exact location of which has since been forgotten. Nevertheless, perhaps due to poor quality of the ore of the region or mismanagement, the company folded in the late 1870's. Traces of the mine on Green Mountain are still evident and may have some historical significance.

Over the years, the mining of garnet has been a gainful industry in the southwestern edge of the planning area, though there are no known garnet mines on VMWF. However, building foundations and portions of an old road leading from the hamlet of North Creek to the garnet mines near Pete Gay Mountain still exist on the unit. It is said employees of the mine used the road to travel to work each day.

The only other known mining operations in the unit have been small gravel pits, often used in the construction of nearby roads. Examples of such pits can be seen along the Moose Pond Road near to where it crosses Vanderwhacker Brook and behind the ranger cabin on Route 28N.

General Acquisition History

Although state acquisition of the lands comprising Vanderwhacker Mountain Wild Forest has been ongoing from the 1870's up to the present, it occurred mainly in two distinct periods in time: the end of the 19th century and during the Great Depression. The majority of the lots that make up the main chunk of the unit, in the Towns of Newcomb and Minerva, was acquired by the state for back taxes in the late 19th and early 20th centuries. In addition, many of the state parcels in the rugged country around Moxham Mountain and in the vicinity of Snyder Hill and Oliver Hill, north of the hamlet of Olmstedville were acquired at the same time. A fair amount of land was also acquired in the same way in the Towns of Schroon and Chester in the area around Green, Pine, and Ledge Hills.

In 1901, the state acquired sole title to over 23,000 acres of land centered around Cheney Pond from George Finch of Finch, Pruyn & Company paper company. This acquisition represented the majority of Township 30 of Totten and Crossfield's Purchase, which stretches from Hewitt Pond north to the current VMWF boundary north of the Blue Ridge Road and from the Durgin Brook drainage west to the point where Route 28N enters VMWF from Newcomb. The eastern portion of the state lands in Township 30 is now classified as Hoffman Notch Wilderness Area and the rest as VMWF. The land was acquired through the settlement of litigation, apparently because of legal problems with the State's title to the land. Much of the Township had originally been acquired by the State in the Tax Sale years of 1877, 1881, and 1885. However, title was also held by George Finch, who claimed the lots had been offered at tax sale illegally and improperly. Litigation between Finch and the State ensued and resulted in a settlement in which Finch's underlying title was sold to the State for $1.50 an acre. In the settlement, George Finch reserved some rights and passed them on to Finch, Pruyn & Company, Inc. These reservations included: the right to dam waters and flood land throughout the Township in order to drive logs to the Hudson, a reservation to cut logs on certain lots in order to build and repair dams and build camps for purposes of river driving, a ten-year timber reservation on certain lots, and a right-of-way for an east-west railroad across the Township. Finch, Pruyn & Company, Inc. did exercise some of these rights over the years including cutting timber locally to maintain Lester Dam and continuing to use the Boreas River and lesser waterways in the Township for river driving.

In the litigation for Township 30, George Finch also negotiated several 25-year, 50-year, and lifetime leases to certain individuals then living along the Blue Ridge Road and the now Route 28N (Gregorie, LaBier, Provenchu, LeClaire, Kay, Havron). Extinguishing these leases would prove time consuming to the State in the 20's and 30's as occupants were reminded of the temporary nature of their rights. A few of them resulted in further settlements, which explain the existence of a few of the private inholdings in the township: specifically the old LaBier Farm on Blue Ridge Road and Kay's Place on 28N. (An interesting side note on the inholding on Lot 4, just south of Mud Pond: Prior to State acquisition through tax sale, George Finch purchased this Lot from Daniel Lynch, who excepted a 15-acre parcel along the road (now snowmobile trail) in the south east corner of the Lot from the sale).

Additional lands were acquired from timber companies and private citizens during the Great Depression as their use for the production of softwood pulpwood or for farming decreased, as did people's and companies' ability to pay property taxes. These lands included lots in the vicinity of Muller, Oliver, and Bigsby ponds as well as Thilo and Charley Hollow Roads in the Town of Schroon.

In the 1950's and 1960's, Finch, Pruyn & Company, Inc. gifted land to the state in several locations under a section of the Environmental Conservation Law (ECL § 9-0107(2)) that allowed the State to accept gifted lands to be used for "forestry purposes." The current version of this statute provides that such lands "shall not become a part of the Forest Preserve." Land in two of these locations would later become a part of the VMWF; one on the north end of Hoffman Notch and the other around the North River Mountains. The area of these non-Forest Preserve State lands totals approximately 6,100 acres.

Other smaller scattered parcels were added to VMWF over the years, but as has been mentioned above, the largest additions by far were made at the end of the 19th century and during the 1930's.

Assassination of President McKinley

Although this event did not have a direct effect on the unit, it is certainly one of the better known events in local history. On September 13, 1901, being warned that McKinley's condition was worsening after an assassination attempt, Vice President Theodore Roosevelt began his descent from a climb of Mount Marcy. The Vice President had been vacationing at Tahawus and decided to leave that night by stage along the rutted, dirt road that would later become State Highway 28N. The entire forty-mile trip to the railhead at North Creek took 5 hours, as he stopped at only two locations along the way, including Aiden Lair, for fresh horses. During the Vice President's mad flight from Tahawus, McKinley died. Upon arriving at Buffalo by train, Roosevelt was sworn in as President. A memorial plaque along the highway near Roosevelt Hill on the Newcomb-Minerva town line indicates Roosevelt's approximate location when McKinley expired.

Old Military Road or The Chester to Canton Road

In 1807, the New York State Legislature, spurred by the threat of war with Great Britain, passed an act laying out a so-called "Chester to Canton" road as a way to protect New Yorkers in the St. Lawrence valley. The concern was that if war arose, British troops garrisoned in Canada would invade St. Lawrence County. Getting munitions and reinforcements to the area from the eastern part of the State would be extremely time consuming. To prepare for this possibility, in 1809 construction was begun on an arsenal at Russell, 12 miles south of Canton and over several years it and the road were completed. There were few settlements between Russell and Minerva, so new construction was focused on this section. From Minerva, the route may have followed existing roads to Chester. The War of 1812 did not proceed as expected and so the road did not figure into the outcome. Portions of the road may have persisted for use by local traffic, but much of it fell into disuse and was reclaimed by the woods or disappeared in farming or logging operations.

The section of the road between the hamlets of Minerva and Newcomb, must have passed through present-day VMWF. Indeed, maps from the early 1900's show a road, which may have been the Old Military Road, heading northwest from the south end of Balfour Lake and crossing the Boreas River approximately 3 miles downstream from the current 28N bridge. The road is believed to have continued from this point around the east side of Vanderwhacker Mountain, perhaps eventually following the route of present-day Chaisson Road in the hamlet of Newcomb. To this day, it is possible to retrace much of this route as it winds through VMWF on a surprisingly level grade.

SECTION II. INVENTORY OF RESOURCES, FACILITIES, AND USE

A. Natural Resources

1. Physical

a. Geology

Much of the area is made up of sedimentary Precambrian rock of the Grenville formation. These sediments were laid down on the bottom of a sea that once covered a very large area of North America. The sediments occur throughout the Adirondacks and are also quite common in the provinces of Quebec and Ontario. Eventually, after continued accumulation, these sediments attained such depth and exerted such pressure that the bottom layers turned into rock such as sandstone, limestone, and shale. Around 1.1 billion years ago, a continent to the east collided with proto-North America with enough force to lift these rocks into a 5-mile high mountain range and recrystallize the sedimentary rock into metamorphic rock (Brown). Thus the sandstone became quartz, the limestone became marble, and the shale became gneiss. Igneous rock from magma from deep within the earth's crust also underwent metamorphosis to form granitic gneiss, olivine metagabbro, and metanorthosite. Metamorphosis of the gabbros resulted in localized occurrences of rock containing garnet (Fisher 1980). In addition, anorthosite underlies the entire Adirondack region and comes to the surface in the North River Mountains of VMWF and throughout the High Peaks region. Minor minerals in anorthosite include oxides of iron and titanium. As a result, over the years there have been a few mining operations in close proximity to and even within VMWF worth mentioning. These include the iron and titanium mine at Tahawus, several garnet mines including Hooper's and Barton's, and at least two iron mines on the unit within the town of Minerva that operated briefly in the 1870's.

The forces of wind and water slowly eroded this mountain range down to a level plain and the landscape remained unchanged for hundreds of millions of years. Then, as recently as 5 to 10 million years ago, a localized domical uplift began which created the present mountains. "The uplift established the present radial drainage pattern, which is overprinted on an earlier trellis pattern, controlled by the parallel, northeast-trending faults (Fisher, 1980)." The mountains largely to the north of VMWF (the area constituting the High Peaks) are the highest in the Adirondacks, because they were at the center of the domical uplifting and because they are composed of anorthosite, which resists erosion more than the metamophosed sedimentary rocks or gneisses that form the bedrock of most of VMWF. Consequently the highest peaks on the unit, the North River Mountains, are composed of anorthosite and are located in the northern reaches of VMWF. Additionally, the rocks less resistant to erosion are found mainly in lower elevations, such as the area around the hamlets of Minerva and Olmstedville and continuing down Trout Brook to its confluence with the Schroon River.

During the Ice Age, glaciers covered the entire area of VMWF, however glacial till or moraine only superficially covers valley floors and certain mountains. In a few places, glacial outwash dominates the local geography. For example, the hummocky plain of the North Branch of Wolf Creek drainage southeast of Newcomb was formed from glacial deposits. In addition, a great number of the ponds and lakes in the unit were formed when a preglacial valley was blocked by a morainal wall. Also, glacial erratics are common throughout the unit including at least one near the top of Vanderwhacker Mountain, indicating even its peak was completely covered by ice.

b. Soils

Most soils in VMWF are derived from glacial deposits that have been moved and deposited as glaciers advanced and retreated and are thus, quite different from the bedrock beneath them. These soils are divided into two broad categories: those derived from glacial till and those derived from glacial outwash, or eskers and moraines. Soils from glacial till are much more common on VMWF and somewhat richer than those from outwash. Organically derived soils make up a third, albeit less common soil type of VMWF.

The predominant soils on the unit are those in the Becket, Tunbridge, and Lyman series, comprising approximately 75% of soils on the unit and found mostly at the middle elevations. Becket series consists of very deep, well-drained loamy soils, formed in glacial till. Tunbridge series consists of moderately deep, well-drained soils, that formed in loamy glacial till. Lyman series consists of shallow, somewhat excessively drained soils formed in glacial till. Soils in the Becket, Tunbridge, and Lyman series are found in the vicinity of Muller, Oliver and Bigsby Ponds; in the area between the Lake Harris Campground and the Lower Duck Hole of Newcomb Lake; as well as around Moxham Mountain. Because soils in these three series are well-drained, they can be appropriate for trail development. Soils in these series are often bouldery, sometimes hindering bicycle and snowmobile trail layout. However, soil classifications are rarely the limiting factor in trail layout. Wetlands, topography, and scenery (among other things) generally dictate trail layout. Most proposed trail development in the unit is planned for areas in which these three series occur, partly because of their ubiquity.

The higher peaks in the unit, including the North River Mountains and Vanderwhacker Mountain, consist mainly of soils of the Rawsonville, Mundal, Hogback, and Ricker series. Rawsonville series consists of moderately deep, well-drained soils formed in loamy glacial till. Mundal series consists of moderately well-drained soils, formed in compact loamy glacial till. Soils in the vicinity of Stony Pond and the Sherman Ponds are also in the Mundal, and Rawsonville series. Hogback series consist of shallow, well-drained soils, formed in loamy glacial till, and are found in such places as the middle slopes of Vanderwhacker Mountain and the tops of Green and Balfour Mountains. Ricker series are organically derived soils that consist of very shallow and shallow, well-drained to excessively drained soils formed in thin organic deposits. Example locations are the summits of Vanderwhacker and Rist Mountains, as well as other peaks in the North River Mountains.

Some of the wetlands, such as Linsey Marsh, Moxham Pond and others in the vicinity of Minerva Stream consist of soils in the Loxley and Beseman series. Soils from these series are poorly drained, organically derived soils overlaying areas of glacial outwash. These soils series are not overly abundant on the unit.

Calcareous soils are found in several locations in VMWF, but are otherwise uncommon in the Adirondack region. Locations of these calcareous soils become apparent as one notes the unique plants and plant communities they often support. Examples include the occasional occurrence of white spruce, which is near the southern limit of its range in VMWF, and the northern white-cedar limestone woodland community around Harris Lake.

c. Terrain/Topography

Winslow Watson's apt description of Minerva in his 1869 History of Essex County also holds for much of the region surrounding the Town. He describes it, as "rugged and mountainous", "...containing about one-third mountain, one-third feasible land, and the residue rough and stony." A glance at a map reveals that the "one-third mountain" and the "rough and stony" third are now Forest Preserve, much of which comprises VMWF.

In general, the land in this locale rises from south southeast to north northwest from Warren County into Essex County. Elevation in VMWF ranges from around 700 feet (215 meters) on the parcels near Schroon Lake up to 3,878 feet (1,182 meters) at one of the peaks of the North River Mountains in the northern reaches of the unit. Rist Mountain (3,858 ft or 1,176 m), Cheney Cobble (3,684 ft or 1,123 m), Vanderwhacker Mountain (3,386 ft or 1032 m), and the north end of Washburn Ridge (3,054 ft or 931 m) are the only other points where the elevation rises above 3,000 feet on the unit. There are several other notable peaks on the unit that are easy to distinguish from others because of their size or shape including Sand Pond Mountain (2,940 ft or 896 m), Beaver Mountain (2,927 ft or 892 m), Green Mountain (2,799 ft or 853 m), and Moxham Mountain (2,464 ft or 751 m).

To the north, east and west of the hamlet of Minerva, the land rises quite quickly and is dotted with moderate sized hills and mountains, some of which have open ledges and cliffs as noted above. The parcels in the town of Schroon to the west of the hamlet are also located on relatively high ground, that being the first ground to be abandoned when farming no longer proves economically feasible. In addition, the parcels of VMWF in Warren County are located on the relatively high-ground around Gore Mountain.

d. Water

The VMWF lies within the Upper Hudson watershed. The Hudson River is adjacent to western and southern portions of the unit. The Boreas River, Minerva Stream and Trout Brook, all of which eventually drain into the Hudson, drain the central and eastern portions of the unit.

Ponded waters in and adjacent to the VMWF range in size from small beaver flows to 446-acre Newcomb Lake, which borders the northwest edge of the unit. The NYS Biological Survey lists 47 ponded waters within or bordering on the unit, but field checks determined that three of those waters are former beaver ponds that are now drained. Thus the unit involves 44 ponded waters with an estimated combined area of about 1400 acres.

Appendix B (page 125) lists the major ponded water in and bordering the unit with a brief narrative pertaining to their important features, including past and current management, accessibility, size, water chemistry, and fish species composition. Appendix B also gives statistical information about ponded waters including definitions of fisheries management classifications (See definitions on page 125) and depth.

Wild, Scenic, and Recreational Rivers (refer to Adirondack Park Land Use and Development Plan Map and State Land Map available from the Adirondack Park Agency)
Two rivers flow through parts of the Vanderwhacker Mountain Wild Forest that are protected by the NYS Wild, Scenic, and Recreational Rivers System Act (WSRR). Management of these sections is guided by ECL Article 15, Title 27 and Regulations for Administration and Management of the Wild, Scenic, and Recreational Rivers System in 6 NYCRR Part 666.

Boreas River - classified “scenic” for approximately 11.5 miles from Cheney Pond to the confluence with the Hudson. See ECL §15-2713 (2)©).

Hudson River - The portion from the hamlet of Newcomb to the confluence with the Cedar River is classified “scenic” and flows through or borders VMWF for approximately 1 mile. The portion stretching from the confluence with the Boreas River to just below the confluence with Griffin Brook is classified as “scenic.” This portion flows through or borders VMWF for approximately 2.5 miles. See ECL §15-2713 (2)(f).

Hudson River - The portion from near the confluence with Raquette Brook and continuing south is classified "recreational." This portion flows through or borders VMWF for approximately 2.0 miles. See ECL §15-2714 (3)(k).

e. Wetlands

The wetlands of the VMWF possess great ecological, aesthetic, recreational, and educational value. In their capacity to receive, store, and slowly release rainwater and meltwater, wetlands protect water resources by stabilizing water flow and minimizing erosion and sedimentation. Many natural and man-made pollutants are removed from water entering wetland areas. Also, because they constitute one of the most productive habitats for fish and wildlife, wetlands afford abundant opportunities for fishing, hunting, trapping, and wildlife observation and photography. The wetlands of the unit serve as important habitats for a number of plant and wildlife species listed as endangered, threatened, or species of special concern which may be present in the unit, including the osprey, northern harrier, spruce grouse, wood turtle, Jefferson salamander, and blue-spotted salamander. (See discussion of Endangered, Threatened, Species of Special Concern on page 26). Historically, wetlands within and immediately adjacent to VMWF have be known to support one New York State-listed endangered plant (sparse-flowered sedge) and three New York State-listed threatened plants. (See discussion of Threatened, Rare, and Endangered Plants on page 22). For the visitor, expanses of open space wetlands provide a visual contrast to heavily forested settings.

Wetlands within VMWF have been inventoried and mapped, and are protected under the 1975 New York State Freshwater Wetlands Act by the Adirondack Park Agency. The most recent inventory from 2000 is available at the APA offices in Ray Brook, NY. In the Adirondack Park, wetlands of 1 acre or larger in size and including a buffer of 100 feet are regulated by the APA. Wetlands under an acre in size are also regulated if they border surface water. Federal regulations do not have a minimum size requirement , nor do they include a buffer distance.

There are approximately 6,172 acres of wetlands located in Vanderwhacker Mountain Wild Forest, occupying roughly 7% of the unit's overall area. (See map in Appendix B). The most common type are forested needle-leaved evergreen wetlands, which are those with a high percentage of mature balsam fir and spruce tree cover. Scrub/shrub broad-leaved deciduous wetlands, those where speckled alder, willow and other deciduous shrubs predominate, are also quite common. Both types are common to the wetlands of Wolf Creek and the Boreas River. Wetlands with cattails, sedges, and grasses (emergent persistent wetlands) are also common on the unit and obvious as one travels along Moose Pond Road. Wetlands consisting of young or stunted spruce and fir (scrub/shrub needle-leaved evergreen) or a variety of evergreen shrubs such as leatherleaf, sheep laurel, and/or Labrador tea also cover sizeable acreages of VMWF. There are smaller areas of wetlands dominated by hardwood trees, such as red maple (forested broad-leaved deciduous), and beaver activity has created wetlands of standing dead trees (forested dead). There are relatively few areas of tamarack bogs (forested needle-leaved deciduous and scrub/shrub needle-leaved deciduous) in the unit. The unconsolidated shore-sand type in the following table refers to small areas of the shore of Cheney Pond and Lester Flow on the Boreas River.

Some of the largest wetlands of the unit are associated with the main and north branches of Wolf Creek to the north, west, and south of Vanderwhacker Mountain. Other significant wetlands include those associated with the Boreas River, as well as Linsey Marsh, and wetlands associated with small ponds, such as Muller Pond, Grassy Pond, and numerous unnamed ponds. Of course significant wetlands complexes occur along many streams within the unit, including Vanderwhacker Brook, Minerva Stream,

Newcomb River, Deer Creek, and Little Vanderwhacker Brook, to name but a few. Beaver are attributed with altering the character of many wetlands along streams.

Wetland types are divided into the following categories and acreages (data from APA Cover Type Wetlands in the Upper Hudson project):

Wetland Type	**Area** (acres)	**% of Total Wetland Area**
Forested Needle-Leaved Evergreen	3,161.5	51.2
Scrub/Shrub Broad-Leaved Deciduous	1,074.4	17.4
Emergent Persistent	615.2	10.0
Scrub/Shrub Needle-Leaved Evergreen	562.7	9.1
Scrub/Shrub Broad-Leaved Evergreen	363.3	5.9
Forested Broad-Leaved Deciduous	224.6	3.6
Forested Dead	124.9	2.0
Forested Needle-Leaved Deciduous	30.7	0.5
Scrub/Shrub Needle-Leaved Deciduous	11.6	0.2
Unconsolidated Shore-Sand	1.4	0.02

f. Climate

Climate

Weather conditions affect public recreation and can be important in determining trail location, seasonal use trends, public uses, and management. The local climate of the VMWF area can be described as generally cool and moist. Climatic data exist for the hamlet of Newcomb on the outskirts of the unit, but information for interior portions of the unit is unavailable. Data for Newcomb are fairly representative of conditions on most of VMWF. Conditions on the easternmost parcels of VMWF in the vicinity of Schroon Lake will be generally warmer in winter months and have less snow cover. Of course, weather conditions will vary across the unit according to elevation, aspect, tree cover, distance from large bodies of water, and local wind patterns.

Data collected by SUNY ESF at their Huntington Forest property adjacent to VMWF near the Hamlet of Newcomb follows (1941 through 1994):
Average Yearly Precipitation (including snowfall) = 40"
Average Yearly Snowfall = 121"

Mean Monthly Temperature (Fahrenheit)

January	15°	April	39°	July	65°	October	44°
February	17°	May	51°	August	63°	November	32°
March	26°	June	60°	September	55°	December	19°

[mean of daily high and low temperature]
(data courtesy of Ray Masters, SUNY ESF Huntington Forest)

Blowdown

Winds have affected portions of VMWF in recent years causing areas of blowdown on a relatively small scale. In 1950, winds leveled stands throughout the Adirondacks from Fulton County to Franklin County. Much of VMWF escaped damage except for relatively small areas. According to maps drawn shortly after the event, blowdown was limited to higher elevations such as south facing slopes of Vanderwhacker Mountain, Beaver Mountain, and the North River Mountains. The area south of Lester Flow and small pockets on Green Mountain were also affected.

g. Air Resources and Atmospheric Deposition

Air quality in the region is good to excellent, rated Class II (moderately well controlled) by federal and state standards. The region receives weather flowing south from the Arctic Circle that tends to be cleaner than weather emanating from the west and southwest. Summit visibility is often obscured by haze caused by air pollutants when a large number of small diameter particles exist in the air. Air quality may be more affected by particulate matter blown in from outside pollution sources rather than from activities inside the Adirondack Park. The relative assimilation of outside pollutants, commonly referred to as “acid rain,” is under investigation and study by staff at the NYS Atmospheric Science Research Station located on Whiteface Mountain and other researchers.

According to recent results of lake chemistry monitoring by NYS DEC from 1992 through 1999, sulfates declined in 92 percent of a representative sample of lakes, selected by the Adirondack Lakes Survey Corporation (ALSC), but nitrates increased in 48 percent of those lakes. The decrease in sulfates is consistent with decreases in sulfur emissions and deposition, but the increase in nitrates is inconsistent with the stable levels of nitrogen emissions and deposition.

Continued monitoring by collection and analysis of acid deposition will allow the monitoring network to determine if improvements will continue as a result of reductions of SO2- and NO4- legislated in the 1990 Clean Air Act Amendments (CAAA).

Effects of Acidic Deposition on Forest Systems

At present, the mortality and decline of red spruce at high elevations in the Northeast and observed reductions in red spruce growth rates in the southern Appalachians are the only cases of significant forest damage in the United States for which there is strong scientific evidence that acid deposition is a primary cause (National Science and Technology Council Committee on Environment and Natural Resources, 1998). The following findings of the National Acid Precipitation Assessment Program (1998) provide a broad overview of the effects of acidic deposition on the forests of the Adirondacks.

The interaction of acid deposition with natural stress factors has adverse effects on certain forest ecosystems. These effects include:

- Increased mortality of red spruce in the mountains of the Northeast. This mortality is due in part to exposure to acid cloud water, which has reduced the cold tolerance of these red spruce, resulting in frequent winter injury and loss of foliage.
- Reduced growth and/or vitality of red spruce across the high-elevation portion of its range.
- Decreased supplies of certain nutrients in soils to levels at or below those required for healthy growth.

Nitrogen deposition, in addition to sulfur deposition, is now recognized as an important contributor to declining forest ecosystem health both at low and at higher elevations. Adverse effects occur through direct impacts via increased foliar susceptibility to winter damage, foliar leaching, leaching of soil nutrients, elevation of soil aluminum levels, and/or creation of nutrient imbalances. Excessive amounts of nitrogen cause negative impacts on soil chemistry similar to those caused by sulfur deposition in certain sensitive high-elevation ecosystems.

Sensitive receptors

High-elevation spruce-fir ecosystems in the eastern United States epitomize sensitive soil systems. Base cation stores are generally very low, and soils are near or past their capacity to retain more sulfur or nitrogen. Deposited sulfur and nitrogen, therefore, pass directly into soil water, which leaches soil aluminum and minimal amounts of calcium, magnesium, and other base cations out of the root zone. The low availability of these base cation nutrients, coupled with the high levels of aluminum that interfere with roots taking up these nutrients can result in plants not having sufficient nutrients to maintain good growth and health.

Sugar maple decline has been studied in the eastern United States since the 1950s. One of the recent studies suggests that the loss of crown vigor and incidence of tree death is related to the low supply of calcium and magnesium to soil and foliage (Driscoll 2002).

Exposure to acidic clouds and acid deposition has reduced the cold tolerance of red spruce in the Northeast, resulting in frequent winter injury. Repeated loss of foliage due to winter injury has caused crown deterioration and contributed to high levels of red spruce mortality in the Adirondack Mountains of New York, the Green Mountains of Vermont, and the White Mountains of New Hampshire.

Acid deposition has contributed to a regional decline in the availability of soil calcium and other base cations in high-elevation and mid-elevation spruce-fir forests of New York and New England and the

southern Appalachians. The high-elevation spruce-fir forests of the Adirondacks and Northern New England are identified together as one of the four areas nationwide with a sensitive ecosystem and subject to high deposition rates.

Bicknell's Thrush is present in high elevation forest thickets within the VMWF. It is a species of Special Concern in NYS, and a species of high conservation concern throughout the Northeast. Acid deposition can negatively effect Bicknell's Thrush through the effects on its preferred young forest habitat, and by reduction in slug and snail populations, which can provide an important source of calcium during egg laying.

Effects of Acidic Deposition on Hydrologic Systems

New York's Adirondack Park is one of the most sensitive areas in the United States affected by acidic deposition. The Park consists of over 6 million acres of forest, lakes, streams and mountains interspersed with dozens of small communities, and a large seasonal population fluctuation. However, due to its geography and geology, it is one of the most sensitive regions in the United States to acidic deposition and has been impacted to such an extent that significant native fish populations have been lost and signature high elevation forests have been damaged.

There are two types of acidification which affect lakes and streams. One is a year-round condition when a lake is acidic all year long, referred to as chronically or critically acidic. The other is seasonal or episodic acidification associated with spring melt and/or rain storm events. A lake is considered insensitive when it is not acidified during any time of the year. Lakes with acid-neutralizing capability (ANC) values below 0 μeq/L are considered to be chronically acidic. Lakes with ANC values between 0 and 50 μeq/L are considered susceptible to episodic acidification; ANC may decrease below 0 μeq/L during high-flow conditions in these lakes. Lakes with ANC values greater than 50 μeq/L are considered relatively insensitive to inputs of acidic deposition (Driscoll et al. 2001). Watersheds which experience episodic acidification are very common in the Adirondack region. A 1995 EPA Report to Congress estimated that 70% of the target population lakes are at risk of episodic acidification at least once during the year.

Monitoring

From 1992 through 1999, sulfates declined in a majority of selected lakes by the Adirondack Lake Survey Corporation, but nitrate patterns were less clear with a few lakes improving and most lakes not changing. The decrease in sulfates is consistent with decreases in sulfur emissions and deposition, but the nitrate pattern is not explained by the unchanged levels of nitrogen emissions and depositions of recent decades.

In addition to sensitive lakes, the Adirondack region includes thousands of miles of streams and rivers which are also sensitive to acidic deposition. While it is difficult to quantify the impact, it is certain is that there are large numbers of Adirondack brooks that will not support native Adirondack brook trout. Over half of these Adirondack streams and rivers may be acidic during spring snowmelt, when high aluminum concentrations and toxic water conditions adversely impact aquatic life.

In 1986, the ALSC surveyed a total of 14 waters in this unit (Appendix B - Barnes Pond, Big Sherman Pond, Cheney Pond, Hewitt Pond, Hotwater Pond, Little Rankin Pond, Nate Pond, Rankin Pond, Stony Pond, Vanderwhacker Pond, Harris Lake, Oliver Pond, Sand Pond, Wolf Pond). Summaries of those data can be found at (http://www.adirondacklakessurvey.org) see ALS Lake Data. Since that time the Adirondack Long-Term Monitoring (LTM) program managed by the ALSC has been sampling chemistry in 52 lakes across the Park on a monthly basis. One of these waters is located within the boundaries of

the VMWF unit; Nate Pond. Two other LTM waters are located in relatively close (within 10 miles) proximity to the northeast and northwest of VMWF. These include Arbutus Lake and Clear Pond. Annual summaries of 22 chemical parameters can be downloaded from the ALSC website.

2. Biological

a. Plant Life

The vegetation of the unit has been shaped over the years through the effects of wind, fire, logging, and settlement, and influenced by soils, elevation, aspect, hydrological regimes, and many other processes. In the late 1800's, much of the unit was extensively logged, lessening the softwood component of many stands in VMWF. The areas of settlement and agriculture were also much larger than they are today, as attested by the number of stone fences and old stone foundations throughout the unit. Beech bark disease has also had an effect throughout the unit over the recent years. The disease is initiated when the beech scale, *Cryptococcus fagisuga*, attacks the bark of beech trees and renders it susceptible to bark canker fungi, *Nectria coccinea* var. *faginata* (USDA Forest Service 1990). Many of the large diameter American beech (*Fagus grandifolia*) are killed, and mainly small root sprouts exist with scattered large diameter trees persisting. Areas where it is easily observable include the height of land between Hotwater Pond and Grassy Pond, but it is common throughout New York. Spruce decline, perhaps due to acid deposition, has affected portions of the unit, as well.

Forest cover type maps are not available at this time, but may be developed in the future. The list of most common forest types that follows has been developed mostly through staff observation. It has been supplemented with information from other Forest Preserve UMP's, USDA Forest Service publications, and the Natural Heritage Program's "Ecological Communities of NYS."

Lowland Coniferous Forest - This type is quite common and typical of low lying areas of VMWF, where soils are generally high in moisture content and exhibit poor drainage. It is often composed of balsam fir (*Abies balsamea*) and red spruce (*Picea rubra*) and occasionally has an eastern white pine (*Pinus strobus*) component. Infrequent associated species include northern white-cedar (*Thuja occidentalis*), black spruce (*Picea mariana)*, and tamarack (*Larix laricina*). Often tree canopy is very dense and subsequently the herbaceous layer is quite sparse. This forest type is very common in the wetlands of the north branch of Wolf Creek and along the banks of the Boreas River, which was named for the "boreal" look of the vegetation along its banks.

Mixed Coniferous and Deciduous Forest - This type is generally composed of northern hardwoods with a major red spruce and/or balsam fir component and may infrequently contain a white spruce (*Picea glauca*) component. White spruce occurrence may be due, in part, to abundant calcium supply (USDA FS). It usually occurs at elevations above spruce-fir swamps and eventually grades into northern hardwoods above. Examples of the cover type occur on the uplands between Hotwater Pond and Grassy Pond, as well as on the middle slopes of Green Mountain. There are also areas where white pine can be a major component.

Northern Hardwood Forest - This type is the most common throughout the unit and usually consists of sugar maple (*Acer saccharum*), American beech, and yellow birch (*Betula alleghaniensis*). Other associated tree species may include northern red oak (*Quercus rubra*) on warmer and drier sites, eastern hemlock (*Tsuga canadensis*), black cherry (*Prunus serotina*), white ash (*Fraxinus americana*), red maple (*Acer rubrum*), and less frequently American basswood (*Tilia americana*). Characteristic understorey vegetation includes hobblebush (*Viburnum lantanoides*), striped maple (*Acer*

pennsylvanicum), and overstorey tree saplings. This type is normally found at elevations up to 2,500 feet on moderately well-drained sites. Examples of this type can be seen at "Boreas Hardwoods" to the north of Northwoods Club Road just east of the Boreas River and on the lower slopes of Dutton Mountain. In steep ravines, hemlock can be the major tree species, such as in the lower reaches of the Raymond Brook drainage in the town of Johnsburg.

Mountain Spruce-Fir Forest - This type generally occurs at elevations above 2,500 feet. It is composed of mainly red spruce and balsam fir often in association with yellow birch. Mountain-ash (*Sorbus americana*) is often a sparse associate. This type occurs at only a few locations on VMWF. The most accessible example can be seen along the last half-mile of the tower trail on Vanderwhacker Mountain. It may also occur in the higher elevations of the North River Mountains.

Successional Forests - This type is common to burned-over areas, old openings and more recently abandoned areas on the unit. This type can vary considerably, but is often made up of one or more of the following species: quaking aspen (*Populus tremuloides*), paper birch (*Betula papyrifera*), white pine, black cherry, and white ash. Examples of this type can be seen along roadsides and on parcels near the hamlet of Minerva. Stands of pure white pine also occur in some locations and are generally indicative of areas of fire or blowdown.

Plantation - Although not necessarily natural in character, plantations are present in several locations on the unit. Many of these were planted on abandoned farmland and burned over areas in the '30s by the Civilian Conservation Corps (CCC) and may be made up of one or more species of softwoods, including eastern white pine, Norway spruce (*Picea abies*), and Scots pine (*Pinus sylvestris*). Examples of white pine plantations can be seen in the saddle along Charley Hollow Road, between the Town of Schroon and the hamlet of Olmstedville. Norway spruce plantations can be seen behind the old ranger cabin on Route 28N near the Minerva-Newcomb town line, along the Roosevelt truck trail near Kay's camp, along the northern portion of the Cheney Pond-Irishtown snowmobile trail, and on the flats between the Blue Ridge Road and Wolf Pond, as well as many other sites within the unit. Small areas of Scots pine exist in a few places in the unit, including along the D & H railroad tracks north of 28N near Vanderwhacker Brook.

Other - Other forest types occur on the unit but occupy relatively small areas. Limestone woodlands exist in the vicinity of Lake Harris and will be discussed in greater detail in the "Rare Ecological Communities" subheading of the "Inventory of Resources, Facilities, and Use" section on page 34. The New York Natural Heritage Program has also identified a Maple-Basswood Rich Mesic Forest on the unit. This forest type is common in the western and central portions of the state, but less common to the Adirondacks. Pure stands of red pine (*Pinus resinosa*) are rare to VMWF, but at least one exists on the unit on the steep, dry, western slopes of Dutton Mountain (personal observation, M. Curley).

Forest Cover Type Inventory

The Bureau of Forest Preserve Management and SUNY ESF are working together to develop computerized GIS models of areas of the Adirondack Forest Preserve. The project will assemble a comprehensive repository of existing spatial data into a GIS database to facilitate the inventory portion of the Unit Management Plan process in the Adirondack Park. The intent of the project is to support the planning process, and increase the quantity and improve the quality of inventory data included in plans. This will be accomplished by increasing cooperation of planners and technical experts among universities, state agencies and non-government organizations to facilitate inclusion of natural resource inventory data in Unit Management Plans. Through this project, Forest Cover Type maps will be developed for this unit for the next update of the UMP.

Invasive-Exotic Plants

Nonnative, invasive species directly threaten biological diversity and the high quality natural areas in the Adirondack Park. Invasive plant species can alter native plant assemblages, often forming monospecific stands of very low quality forage for native wildlife, and drastically impacting the ecological functions and services of natural systems. Not yet predominant across the Park, invasive plants have the potential to spread - undermining the ecological, recreational, and economic value of the Park's natural resources.

Because of the Adirondack Park's continuous forested nature and isolation from the normal "commerce" found in other parts of the State, its systems are largely functionally intact. In fact, there is no better opportunity in the global temperate forested ecosystem to forestall and possibly prevent the alteration of natural habitats by invasive plant species.

Prevention of nonnative plant invasions, Early Detection/Rapid Response (ED/RR) of existing infestations, and monitoring are primary objectives in a national strategy for invasive plant management and necessitates a well-coordinated, area-wide approach. A unique opportunity exists in the Adirondacks to work proactively and collaboratively to detect, contain, or eradicate infestations of invasive plants before they become well established, and to prevent further importation and distribution of invasive species, thus maintaining a high quality natural landscape. We share an inherent obligation to minimize or abate existing threats in order to prevent widespread and costly infestations.

The Department has entered into a partnership agreement with the Adirondack Park Invasive Plant Program (APIPP) The mission of the APIPP is to document invasive plant distributions and to advance measures to protect and restore native ecosystems in the Park through partnerships with Adirondack residents and institutions. Partner organizations operating under a Memorandum of Understanding are the Adirondack Nature Conservancy, Department of Environmental Conservation, Adirondack Park Agency, Department of Transportation, and Invasive Plant Council of NYS. The APIPP summarizes known distributions of invasive plants in the Adirondack Park and provides this information to residents and professionals alike. Specific products include a geographic database for invasive plant species distribution; a central internet website for invasive plant species information and distribution maps; a list-serve discussion group to promote community organization and communication regarding invasive species issues; and a compendium of educational materials and best management practices for management.

In 1998 the Adirondack Nature Conservancy's Invasive Plant Project initiated Early Detection/Rapid Response (ED/RR) surveys along Adirondack Park roadsides. Expert and trained volunteers reported 412 observations of 10 plant species throughout the area surveyed, namely NYS DOT Right-of-Ways (ROW). In 1999 the Invasive Plant Project was expanded to include surveying back roads and the "backcountry" (undeveloped areas away from roads) to identify the presence or absence of 15 invasive plant species. Both surveys were conducted under the auspices of the Invasive Plant Council of New York "Top Twenty List" of non-native plants likely to become invasive within New York State. A continuum of ED/RR surveys now exists under the guidance of the Adirondack Park Invasive Plant Program (APIPP).

Assessments from these initial ED/RR surveys determined that four (4) terrestrial plant species would be targeted for Control and Management based upon specific criteria such as geophysical setting, abundance and distribution, multiple transport vectors and the likelihood of human-influenced disturbance. The four Priority terrestrial invasive plants species are **Purple loosestrife** (*Lythrum salicaria*), **Common reed** (*Phragmites australis*), **Japanese knotweed** (*Polygonum cuspidatum*) and **Garlic mustard** (*Alliaria petiolata*).

The Adirondack Park is susceptible to further infestation by invasive plant species intentionally or accidentally introduced to this ecoregion. While many of these species are not currently designated a priority species by APIPP, they may become established within or in proximity to a Unit and require resources to manage, monitor, and restore the site.

Infestations located within and in proximity to a Unit may expand and spread to uninfected areas and threaten natural resources within a Unit; therefore it is critical to identify infestations located both within and in proximity to a Unit and then assess high risk areas and prioritize Early Detection Rapid Response (ED/RR) and management efforts.

Terrestrial Locations

There are no known **Purple loosestrife** (*Lythrum salicaria*) infestations on VMWF lands, but three (3) infestations exist on private and state lands in the general vicinity of this unit. Please refer to the terrestrial invasive plant species distribution map (Appendix R).

There is one (1) **Japanese knotweed** (*Polygonum cuspidatum*) infestation within the unit and two (2) additional infestations in the general vicinity of the unit. Multiple, high priority Japanese knotweed infestations occur along both sides of North Woods Club Road near the VMWF boundary. These aggressive infestations are spreading within and beyond the maintained ROW and into adjacent Forest Preserve. The plants were likely accidentally introduced via contaminated fill/spoils utilized along the Town roadsides. The infestations are interspersed for approximately 275 feet.

A confined, dense, **High Priority** Japanese knotweed infestation occurs at Camp Santanoni, near the old Sears camp. Previous efforts by DEC staff to control the infestation by weed-whipping have accidentally spread and intensified the stand density.

There is one (1) **Common reed** (*Phragmites australis*) infestation in the general vicinity of the unit.

Observances of New Non-Native Invasive Plant Species

There are multiple **Yellow iris** (*Iris pseudacorus*) infestations within the Siamese Ponds Wilderness that may impact the Vanderwhacker Mountain Wild Forest**.** Multiple infestations of a terrestrial invasive species of critical concern, **Yellow iris** (*Iris pseudacorus*), occurs within the Vly Pond outlet and headwaters of the East Branch Sacandaga River. Multiple Yellow iris infestations also occur within a tailings pond on Barton Mines property. This tailings pond has an outlet into the Vly Pond outlet and is likely serving as a nursery infestation to the Siamese Ponds Wilderness. The geophysical settings of these Yellow iris infestations make them imminent threats to both Vanderwhacker Mountain Wild Forest and Siamese Ponds Wilderness. Recommendations for the eradication of this infestation are contained within the Siamese Ponds Wilderness UMP.

While **Yellow iris** is not currently designated a priority terrestrial invasive plant species by APIPP, these documented infestations affecting both Units are the largest known occurrences of this invasive species within the Adirondack Park. The species' historical record of difficulty to control, and potential domination of stream corridors and wetlands, makes it a species of critical concern for all land managers within the Adirondack Park. Containment and eradication of this species will be considered a high priority by the Department.

Aquatic Invasive Plant Locations

A variety of monitoring programs collect information directly or indirectly about the distribution of aquatic invasive plants in the Adirondack Park including the NYS DEC, Darrin Fresh Water Institute, Paul Smiths College Watershed Institute, lake associations, and lake managers. In 2001, the Adirondack Park Invasive Plant Program (APIPP) compiled existing information about the distribution of aquatic invasive

plant species in the Adirondack Park and instituted a regional long-term volunteer monitoring program. APIPP trained volunteers in plant identification and reporting techniques to monitor Adirondack waters for the presence of aquatic invasive plant species. APIPP coordinates information exchange among all of the monitoring programs and maintains a database on the current documented distribution of aquatic invasive plants in the Adirondack Park.

Aquatic invasive plant species documented in the Adirondack Park are Eurasian watermilfoil (*Myriophyllum spicatum*), Water chestnut (*Trapa natans*), Curlyleaf pondweed (*Potamogeton crispus*), Fanwort (*Cabomba caroliniana*), European frog-bit (*Hydrocharus morsus-ranae*), and Yellow floating-heart (*Nymphoides peltata*). Species located in the Park that are monitored for potential invasibility include Variable-leaf milfoil (*Myriophyllum heterophyllum*), Southern naiad (*Najas guadalupensis*), and Brittle Naiad (*Najas minor*). Additional species of concern in New York State but not yet detected in the Park are Hydrilla (*Hydrilla verticillata*), Water hyacinth (*Eichhornia crassipes*), and Brazilian elodea (*Egeria densa*). For species specific information regarding natural history, ecology, and reproduction, please refer to the Invasive Plant Atlas of New England program website http://webapps.lib.uconn.edu/ipane/search.cfm.

Initial surveys do not detect occurrences of aquatic invasive plants within the VMWF. APIPP volunteers monitored Minerva Lake in 2004 and Austin Pond from 2002-2004, and no aquatic invasive plant infestations are documented to-date. The APIPP Park-wide volunteer monitoring program aims to maintain its monitoring program on these and other lakes.

Threatened, Rare, and Endangered Plants

Over the years, the New York Natural Heritage Program (NYNHP) has identified the historical existence of one New York State-listed endangered plant and three New York State-listed threatened plants within or immediately adjacent to VMWF. Although the specific location of these species is exempted from public Freedom of Information Laws (FOIL) to protect the species, this information is used and integrated by DEC in all resource planning activities. The sparse-flowered sedge (*Carex tenuiflora*), last observed in 1923, was noted to have occurred near open marsh in Newcomb, generally located on the VMWF parcel adjacent to Camp Santanoni. It is classified as endangered with a global rank of G5 and a state rank of S1 (for explanation, see Appendix D, page 146). Swamp pink (*Arethusa bulbosa*), classified as threatened was last observed in 1923 in a marsh in Newcomb, generally located on the VMWF parcel adjacent to Camp Santanoni. Its global rank is G4, and state rank is S2. Balsam willow (*Salix pyrifolia*), classified as threatened, was last observed in 1927 along banks of the Hudson River in the Town of Newcomb. Its global rank is G5 and state rank is S2S3. Pink wintergreen (*Pyrola asarifolia* ssp *asarifolia*), listed as threatened, was last observed in 1925 along the banks of the Hudson River above Newcomb, and in 1939 in a spruce-tamarack swamp in Newcomb. Its global rank is G5 and state rank is S2. Since all of four of these plants have not been observed on the unit since the 1930's, it is recommended that NYNHP perform a survey of these areas to determine if these plants are present and what measures, if any, should be taken to protect them. A fifth plant, tall thistle (*Cersium altissimum*), which possesses no state or federal protective classification, was last observed in 1927 in a sandy field along Minerva Stream adjacent to VMWF. Tall thistle is now thought to be extirpated from New York State, with a very low probability of rediscovery. Its global rank is G5. There are no other threatened, rare, or endangered plants known to exist on the unit.

b. Wildlife

Field inventories of wildlife species have not focused specifically on VMWF. However, various inventories, surveys and monitoring projects undertaken by DEC and others have included VMWF in their

scope. The species included in the attached appendices were compiled by combining the results of various surveys, harvest statistics, publications, and the reports of observers.

Birds

As a result of the unit's transitional character in terms of climate and vegetation, there is an overlapping of typically northern, eastern and southern bird species. The distribution and abundance of bird species, as with wildlife in general, is determined by physical factors such as elevation, topography, climate, various biological factors such as forest types, population dynamics, each species' habitat requirements, forest preserve regulations and social land uses. The avian community varies seasonally. Some species remain within the area all year round, but the majority of species utilize the area during the breeding season and for migration.

According to New York State Breeding Bird Atlas data (BBA) (2000), 147 species of birds are believed to breed within the VMWF (Appendix E, Table 1). Atlas blocks overlap and extend beyond the state land boundary. Therefore, BBA data does not necessarily reflect what is found on Vanderwhacker Mountain Wild Forest but on the atlas blocks. It is probable that some species determined to be present by BBA were found only on private lands adjacent to the state lands. Still the BBA data should provide a very good portrayal of the species found throughout the Vanderwhacker Mountain Wild Forest. Some species thought to occur occasionally within the unit are not shown in the Bird Atlas data.

The Vanderwhacker Mountain Wild Forest is comprised of a variety of habitats, but is predominantly maturing forest. Over time, the forest will mature into old growth forest and the bird species utilizing the area will be dominated by species that utilize that habitat type. Other habitats types of importance include lakes, ponds, streams, bogs, beaver meadows, and shrub swamps.

Birds associated with marshes, ponds, lakes, and streams include: common loon, great blue heron, green-backed heron, American bittern, and a variety of waterfowl. The most common ducks include the mallard, American black duck, wood duck, hooded merganser, and common merganser. Other species of waterfowl migrate through the region following the Atlantic Flyway.

Bogs, beaver meadows, shrub swamps, and any areas of natural disturbance provide important habitat for species that require or prefer openings and early successional habitats. Species such as alder and olive-sided flycatchers, American woodcock, ruffed grouse, Lincoln sparrow, Nashville warbler, chestnut-sided warbler, Canada warbler, golden-winged warbler, mourning warbler, eastern towhee, brown thrasher, yellow warbler, common yellowthroat, indigo bunting, whip-poor-will, and field sparrow rely on these habitats and are rarely found in mature forests. These species, as a suite, are declining more rapidly throughout the Northeast than species that utilize more mature forest habitat. Due to existing landcover and patterns of vegetative succession, habitat for these species will be very limited within Vanderwhacker Mountain Wild Forest, and we expect that early successional species will decline in the absence of disturbance that creates openings.

Birds that prefer forest habitat are numerous, including many neotropical migrants. These species have adapted to habitats with varying forest conditions. Some prefer large blocks of contiguous forest (e.g., northern goshawk), others prefer blocks of forest with adjacent openings, and many prefer forest with an relatively thick shrub layer. The forest currently is maturing, and will eventually become old growth forest dominated by large trees. However, through processes of natural disturbance, gaps in the forest canopy will allow sunlight to reach the ground and will create areas of dense regrowth.
Songbirds are a diverse group filling different niches in the Adirondacks. The most common species found throughout the deciduous or mixed forest include the ovenbird, red-eyed vireo, black-capped chickadee, blue jay, downy woodpecker, brown creeper, wood thrush, black-throated blue warbler,

magnolia warbler, American redstart, white-throated sparrow, pileated woodpecker, and black and white warbler. The golden-crowned kinglet, purple finch, red and white-winged crossbill, gray jay, boreal chickadee, black-throated green warbler, northern parula, and black-backed woodpecker are additional species found in the coniferous forest and exhibit preference for this habitat. Birds of prey common to the area include the barred owl, great horned owl, sharp-shinned hawk, and broad-winged hawk.

Game birds include upland species such as turkey, ruffed grouse and woodcock, as well as a variety of waterfowl. Ruffed grouse and woodcock prefer early successional habitats and their habitat within the area is limited due to the lack of timber harvesting. Turkey are present in low numbers and provide some hunting opportunities. Waterfowl are fairly common along the waterways and marshes, providing hunting opportunities.

Bird Conservation Areas

In September of 1997, §11-2001 of the Environmental Conservation Law of New York was established creating the New York State Bird Conservation Area Program. The program is designed to safeguard and enhance bird populations and their habitats on selected state lands and waters. In November of 2001, New York State designated the Adirondack mountain summits above 2,800 feet in Essex, Franklin, and Hamilton counties as the Adirondack Subalpine Forest Bird Conservation Area (BCA). Included in the designation were lands over 2,800 feet elevation in the VMWF. The site was nominated because of its diverse species concentration, individual species concentration and its importance to species at risk, in particular the Bicknell's Thrush (special concern). The vision for the Adirondack Subalpine Forest BCA is to "continue to maintain the wilderness quality of the area, while facilitating recreational opportunities in a manner consistent with conservation of the unique bird species present" (NYSDEC, 2001). The Department has developed Management Guidance Summary to identify education and research needs, and to outline operational management considerations. Considerations specific to the unit include:

Operation and Management Considerations:

- The BCA is comprised of lands that are within the VMWF and other lands within the broader Adirondack Forest Preserve. The High Peaks Wilderness Area portion is subject to relatively stringent regulations and use limitations. Portions of the BCA that are not within the HPWA may have less stringent use limitations.
- To ensure disturbances are kept to a minimum, trail maintenance and construction activities should be accomplished outside of the breeding season, when possible. If, in accordance with Department policy, motorized equipment use is necessary, such use shall be minimized during the breeding or nesting periods.

Education, Outreach and Research Considerations:

- There is a need to identify to the public the distinctive bird community present in subalpine forests over 2,800 feet. The potential impacts of human intrusion need to be portrayed to the public, and a "please stay on the trails" approach may be beneficial. Continue partnerships with the National Audubon Society, High Peaks Audubon Society, Adirondack Mountain Club and other groups involved in education and conservation of birds of the Adirondack Sub-alpine Forest BCA.
- Acid rain deposition may be having an impact on nesting success of songbirds at high elevations by causing die-offs of high altitude conifer forests, and killing snails and other sources of calcium needed for egg production. More research is needed on this. The curtailment of sulphur dioxide emissions and the reduction of acid rain is currently a significant New York State initiative.
- A detailed inventory and standardized monitoring of special concern species is needed for the area. In particular, all peaks above 2,800 feet should be surveyed for Bicknell's Thrush.
- The impact of the current levels of human-use on nesting success needs to be assessed.

Mammals

Other than the small-footed bat (*Myotis leibii*), there are no known endangered, threatened, or mammals of special concern that inhabit the VMWF despite the occasional reports of wolves and cougars.

Larger mammals known to inhabit the VMWF include white-tailed deer, moose, black bear, coyote, bobcat, raccoon, red fox, gray fox, fisher, marten, mink, muskrat, river otter, beaver, porcupine, and varying hare.

A variety of smaller mammals also reside in the unit. (See Appendix E, Table 7). They include various species of bats, shrews, moles, and mice, along with the ermine, long-tailed weasel, eastern chipmunk, and red squirrel. Populations of weasel, mink, muskrat, otter, and beaver are concentrated near water, and the varying hare and red squirrel are mostly confined to stands of spruce and fir. Although suitable habitats exist for the continued survival of all species presently occurring in VMWF, the process of forest succession influenced by natural disturbances such as wind, insects, and disease, as well as past logging and forest fires, continues to alter the composition of forest communities. Large areas are presently occupied by young forest stands which became established after disturbance. The current decline in upper-elevation stands of spruce and fir, and the widespread die back of beech, caused by the spread of the beech bark disease, continually creates openings in the forest canopy of the unit. Forest succession is not static and consequently, locally restores habitat conditions favorable to many wildlife species.

Populations of varying hare at higher elevations may increase as young stands of spruce and fir grow beneath older stands of white birch and northern hardwoods. However, the maturation of climax forest communities may lead to reductions in hare and deer populations. On the other hand, the populations of various species of birds and mammals which require tree cavities for reproduction should increase as forest stands mature.

White-tailed deer are found throughout VMWF. However, habitat conditions of the unit make it a relatively poor area for deer production as compared to other areas in northern New York. The size of the deer population is limited by severe winters, insufficient deer browse, and few suitable deer wintering areas. From early spring (April) to late fall (November), deer are distributed generally on their "summer range." When snow accumulates to depths of 20 inches or more, deer travel to traditional wintering areas. Locations of deer wintering areas are described in more detail within the significant habitat section (page 30.) Deer wintering areas usually are lowland areas covered by forests of spruce and fir which serve as shelter when snow accumulates to depths of 20 inches or more. Severe winter weather virtually confines deer to wintering areas for long periods during which the depletion of available browse can lead to high deer mortality, especially for fawns with limited fat reserves. Severe decline in the deer population can be traced directly to adverse winters. Within the Adirondacks, the carrying capacity of deer wintering areas limits the carrying capacity of the entire annual range of the deer population.

In response to the threat of Chronic Wasting Disease (CWD) being potentially introduced into New York, DEC has placed a ban on feeding wild deer under most circumstances. Feeding deer artificially concentrates them in one location for extended periods of time. CWD is most likely transmitted from deer to deer by direct contact between animals, or indirectly through contact with waste food, urine, and feces that build up at feeding sites, although the exact transmittal mechanism is currently unknown. Although CWD has not been found in New York, this measure is a precaution to help prevent the spread of CWD if it already exists in the state, or if it is introduced later. DEC is currently collecting tissue samples from white-tailed deer populations throughout the state to test for the presence of CWD. Sampling has occurred in the general vicinity of VMWF and CWD has not been detected in those deer populations.

Although relatively numerous, it is believed that black bears are seldom encountered in the unit by hikers on the trail. Habitat conditions support a stable bear population well-suited to the area.

Moose (*Alces alces*), while low in numbers, are making a slow comeback in northern New York after having been absent since the 1860's and may be an occasional visitor to the VMWF. Moose tracks have been noted in VMWF and at least one animal sighting was reported in 2000. It is estimated that the current moose population in northern New York may be approximately 200 animals or more. Additionally, successful reproduction has been confirmed. Although moose prefer to feed on species of woody vegetation generally found in forests of earlier successional stages than those occurring in the VMWF, moose in general find later-stage forest habitats more suitable than do white-tailed deer and may come to occupy the unit in greater numbers in the future. Experience from Vermont and New Hampshire indicates that the moose population will likely increase in the future.

In the northeastern United States, moose use seasonal habitats within boreal and mixed coniferous/deciduous forests. The southern distribution of moose is limited by summer temperatures that make the regulation of body temperature difficult. Moose select habitat primarily for the most abundant and highest quality forage (Peek 1997). Disturbances such as wind, fire, logging, tree diseases, and insects create openings in the forest that result in regeneration of important hardwood browse species such as white birch, aspen, red maple, and red oak. Typical patterns in moose habitat selection during the summer include the use of open upland and aquatic areas in early summer followed by the use of more closed canopy areas (such as upland stands of mature aspen and white birch) that provide higher quality forage in late summer and early autumn. After the fall rut and into winter, moose intensively use open areas again where the highest biomass of woody browse exists (i.e., dormant shrubs). In late winter when browse quantity and quality are lowest, moose will use closed canopy areas that represent the best cover available within the range (e.g., closed canopy conifers in boreal forest). From late spring through fall, moose commonly are associated with aquatic habitats such as lakes, ponds, and streams. However, their use of aquatic habitats can vary geographically over their range. It is believed that moose use aquatic habitats primarily to forage on highly palatable plants, however, moose may also use these areas for relief from insects and high temperatures.

Amphibians and Reptiles

Relatively short summers and the long, cold winters of VMWF hypothetically limit the number of species of reptiles and amphibians. Three species of turtles, five species of snakes, eight species of salamanders, one species of toad, and eight species of frogs are believed to be residents of VMWF. See Appendix E, Table 6 for a listing of reptile and amphibian species recorded during the New York State Amphibian and Reptile Atlas Project located within or partially within the Vanderwhacker Mountain Wild Forest. These data represent species observed during the ten-year span of the project (1990-1999).

Endangered, Threatened, Species of Special Concern and Other Unique Species

Title 6 New York Code of Rules and Regulations (NYCRR) Part 182 defines and lists endangered and threatened species of fish and wildlife and fish and wildlife species of special concern. Although the specific location of these species is exempted from public Freedom of Information Laws (FOIL) to protect the species, this information is used and integrated by DEC in all resource planning activities. Three endangered species which are or may be found in VMWF are the round whitefish, the spruce grouse (possible breeder) and the peregrine falcon (confirmed breeder). No spruce grouse have been confirmed as nesting in the unit, but the species is listed as a possible breeder in one of the 70 Breeding Bird Atlas blocks. Peregrine falcons have been confirmed as nesting in the vicinity of Lower Ausable Lake. There is also a possible but unconfirmed peregrine falcon nesting site in the vicinity of Ragged Mountain. In addition, a New York Natural Heritage Program report from the 1970's lists an eyrie somewhere in the mountains around the hamlet of North River along the Warren-Essex line, which could include parts of VMWF. The round whitefish has been documented in biological surveys of Newcomb Lake, which is addressed in the High Peaks Wilderness Area Unit Management Plan.

Among the threatened species of wildlife which may be residents of the VMWF is the northern harrier (possible breeder).

Species of special concern, which have been observed in the VMWF, include the small-footed bat, common loon (confirmed breeder), American bittern (confirmed breeder), osprey (confirmed breeder), Bicknell's thrush (confirmed breeder), sharp-shinned hawk (possible breeder), Cooper's hawk (confirmed breeder), goshawk (confirmed breeder), red-shouldered hawk (possible breeder), common nighthawk (possible breeder), whip-poor-will (probable breeder), red-headed woodpecker (probable breeder), wood turtle, blue-spotted salamander and Jefferson salamander.

Osprey (*Pandion haliates*)
The osprey population in New York appears to be stable and may be increasing slightly. Osprey breed near large bodies of water, including rivers and lakes, that support abundant fish populations. Osprey typically construct their nest in tall dead tress, but also use rocky ledges, sand dunes, artificial platforms, and utility pole crossarms. Nests are placed in locations that are taller than adjacent areas, which provide vantage points. According to information gathered during DEC's annual osprey surveys, one osprey nest has been confirmed in Pottersville Marsh, near Pottersville and other nests are located relatively close to but outside the bounds of the VMWF.

Common Loons (*Gavia immer*)
Common Loons use small and large freshwater lakes in open and densely forested areas for breeding and nest on lakes as small as two acres. Special habitat requirements include bodies of water with stable water levels with little or no human disturbance. Loons use islets for nesting and shallow coves for rearing their young. Nests are constructed on the ground at the water's edge on sand, rock, or other firm substrates. Loons prefer small islands for nesting (to avoid predators) but will also nest along protected bays and small peninsulas of the shoreline.

Loons have been observed on Wolf Pond, Mink Pond, Cheney Pond, Oliver Pond, Newcomb Lake, Henderson Lake, Trout Pond, Thumb Pond, Hewitt Pond, and Boreas Pond. In addition, the 2002 Adirondack Cooperative Loon Program's (ACLP) annual census reported the presence of adult loons and chicks on Sand Pond (North Hudson) and Stony Pond (Minerva). Loons normally swallow small pebbles as "grit" to help their gizzards break down bones from the fish they eat. Occasionally, the birds mistake fishing tackle for pebbles and then succumb to lead poisoning after ingesting lead sinkers or jigs. The specific impact this has had on loon populations in VMWF is unknown but, lead poisoning due to fishing tackle ingestion is a source of mortality in adult loons throughout the northeastern US (ACLP, 2003). The Adirondack Cooperative Loon Program offers a program whereby anglers can exchange their lead sinkers for non-toxic sinkers at numerous locations throughout the Adirondack Park. More information on this program is available at www.adkscience.org/loons. New York State recently passed legislation that will prohibit the sale of certain lead sinkers. Beginning in May 2004, the sale of lead fishing sinkers (including "split shot") weighing one-half ounce or less will not be permitted.

Bicknell's Thrush (*Catharus bicknelli*)
Throughout the range of Bicknell's thrush, montane forest dominated by stunted balsam fir and red spruce is the primary habitat. Bicknell's thrush utilizes fir waves and natural disturbances as well as the dense regenerated ecotones along the edges of ski slopes. The breeding habitat of Bicknell's thrush is located in the Adirondacks at elevations > 2800 ft. The species is most common on the highest ridges of the Adirondacks, preferring young or stunted dense stands of balsam fir up to 9 ft. in height. Here they lay their eggs above the ground in the dense conifer thickets. While found in the nearby HPWA as low as 2700 ft. (Lake Colden) it is most numerous on higher ridges up to an elevation of 4500 ft. Levine (1998)

has identified breeding season reports on 27 Adirondack and 14 Catskill mountains. In 2000 New York State created an Adirondack Sub-alpine Bird Conservation Area to identify habitat where management action should take into account breeding areas of Bicknell's thrush and other high elevation breeding species. Bicknell's thrush, a Species of Special Concern, has been identified by several sources as occurring within the unit (NYS Breeding Bird Atlas, Lambert et.al., 2002).

Red-headed Woodpecker (*Melanerpes erythrocephalus*)
Both wetlands (forested and riverine wetlands, beaver impoundments, dead tree swamps) and uplands (grasslands with scattered trees, golf courses, pastures, roadsides) are used by nesting Red-headed Woodpeckers (Bull, 1974). Red-headed Woodpeckers also are attracted to old burns and recent clearings. Nests are usually located in snags or dead limbs of live trees, or in the absence of trees, poles, fences, or roofs (Ehrlich, 1988).

Common Nighthawk (*Chordeiles minor*)
Two distinct habitats are used by nesting Common Nighthawks: bare flat rocks or bare ground in open fields and pastures, and, more recently (since the mid-late 1800s), on flat, gravel rooftops (Bent, 1940). In upstate New York nighthawks also nest in mountainous areas, provided woods are interspersed with clearings or openings (Bull, 1974).

American Bittern (*Botaurus lentiginosus*).-- In the Adirondacks, the American Bittern is a bird of freshwater emergent wetlands where it typically nests on a grass tussock or among the cattails. Here it lays its eggs from 4 to 18 inches above the water (Bull, 1974) in scanty nests made from sticks, grass, and sedges. Separate paths are made in the tall vegetation for entering and exiting the nest (Ehrlich et al., 1988).

Peregrine Falcon (*Falco peregrinus*)
The Peregrine Falcon is listed as endangered in New York State. After extirpation of Peregrines in the 1960s, in 1974 New York initiated a program to reintroduce the falcons in the state. Peregrines were successfully hacked in the Adirondack Park with the release of the first birds in 1981. It is possible that Peregrines presently use the VMWF or surrounding areas for nesting due to the following: (1) suitable nesting habitat exists within and surrounding the VMWF, (2) Peregrines have previously been observed in the area (3) at least two historic sites are located in the nearby vicinity, and (4) young Peregrines hatched from Adirondack eyries are returning to the Adirondacks and consequently selecting new areas for nesting.

Three basic habitat requirements are necessary for nesting Peregrine Falcons including open country in which to hunt, sufficient food resources (i.e., other avian species), and steep, rocky cliff faces for nesting (Ratcliffe, 1993). The falcons typically nest 50 to 200 feet off the ground and often near a river, stream, or other water body. Nesting sites for Peregrines usually include a partially-vegetated ledge (with both herbaceous and woody species) that is large enough for at least several young to move about during the pre-fledging period. The nest is a well-rounded scrape that is sometimes lined with grass. Ideally, the eyrie ledge also is sheltered by an overhang that protects the chicks from inclement weather. Occasionally, Peregrines may nest in old Common Raven nests. Suitable nest sites (e.g., snags, live trees, ledges) are located on the cliff face near the eyrie, on more distant sections of the cliff, and on the cliff rim.

Red-shouldered Hawk (*Buteo lineatus*)
Red-shouldered Hawks breed in moist hardwood, forested wetlands, bottomlands and the wooded margins of wetlands, often close to cultivated fields, Red-shouldered hawks are reported as rare in mountainous areas. Special habitat requirements include cool, moist, lowland forests with tall trees for nesting. Red-shouldered hawks forage in areas used as nesting habitat as well as drier woodland clearings and fields.

Cooper's Hawk (*Accipiter cooperii*)
Cooper's Hawks use a variety of habitat types, from extensive deciduous or mixed forests to scattered woodlots interspersed with open fields. Floodplain forests and wooded wetlands are also used by Cooper's Hawks. Cooper's hawk construct nests typically at a height of 35 to 45 feet in both conifer (often white pine) and deciduous trees (often American beech). Nests are commonly constructed on a horizontal branch or in a crotch near the trunk. Cooper's Hawks have been known to use old crow nests as well. Foraging areas are usually located away from the nest in forested areas or open areas adjacent to forest.

Whip-poor-will (*Caprimulgus vociferus*)
Whip-poor-wills select open woodlands in lowland deciduous forest, montane forest, or pine-oak woods (Ehrlich, et. al., 1988) that is interspersed with open fields, with a preference for dry oak-hickory woods in some areas of upstate New York (Bull, 1974). Whip-poor-wills nest on the ground in dry, sparse areas. Eggs are typically laid in the open or under a small shrub on the leaf litter where they are well concealed (Bent, 1940).

Sharp-shinned Hawk (*Accipiter striatus*)
Sharp-shinned Hawks prefer breeding habitats that consist of open or young woodlands that support a large diversity of avian species, the hawk's primary prey (Johnsgard, 1990). Although Sharp-shinned Hawks use mixed conifer-deciduous forest for nesting, most nests recorded in New York State have been located in conifers, with 80% of the nests found in hemlocks (Bull, 1974).

Northern Goshawk (*Accipiter gentilis*)
A combination of tall trees with a partial canopy closure for nesting and woodlands with small, open areas for foraging are important habitat parameters for the Northern Goshawk (Johnsgard, 1990). In New York State, goshawks prefer dense, mature, continuous coniferous or mixed woods where they typically place their nest 30-40 ft. off the ground in the crotch of a tree (Andryle and Carroll, 1988).

Northern Harrier (*Circus cyaneus*)
The Northern Harrier is a bird of open country in associated wet to mesic habitats (Johnsgard,1990). Results of a 1979 survey showed that bogs and other wetland habitats provided nesting sites for Northern Harriers in the Adirondacks (Kogut, 1979 *In*: Andryle and Carroll 1988). Unlike most New York raptors, harriers nest on the ground, either on hummocks or directly on the ground in nests that are woven from grass and sticks (Andryle and Carroll, 1988).

Spruce Grouse (*Falcipennis canadensis*)
In the Adirondacks, the rare Spruce Grouse is a denizen of the boreal acid bog forest where it selects immature or uneven-aged spruce-fir habitat (Andryle and Carroll, 1988). Mosses, lichens, and shrubs provide nesting and foraging ground cover in areas where the forest canopy is less dense. Because their forested wetland habitat is poorly drained, grouse move on to upland summer range to dust and forage (Andryle and Carroll, 1988).

Wood Turtle (*Glyptemys insculpta*)
The wood turtle is a semiaquatic turtle found in streams with sandy-pebbly substrates that are deep

enough so that they do not freeze during hibernation, are well-oxygenated, and have good water quality. Streams used by wood turtles may flow through upland deciduous or coniferous forest, upland successional fields, forested wetlands, low compact shrub swamps, bushy shrub swamps, and emergent wetlands. Ideal habitat includes dense alder swamp and forested wetland habitat bordering the streams where the turtles can bask in filtered sunlight, yet have adequate cover from predators (Quinn and Tate, 1991; Kaufmann, 1992; Tuttle and Carroll, 1997; Compton et al., 2002). Turtles will often seek out open areas in forested habitat for basking. Wood turtles will use less desirable habitat for foraging on food items such as fungi and sparse herbaceous vegetation. Some researchers consider wood turtles an edge species, but this is more a function of seeking out suitable foraging or basking areas. Primary habitat also includes suitable nesting habitat in sandy open areas that is just moist enough for successful egg development. Wood turtles select both slopes and level areas for nest sites. Historically (and presently where suitable habitat exists) wood turtles nested on naturally-occurring sand banks along streams and rivers. Now many nests are excavated in man-made sandpits (Tuttle, 1996).

Wood turtles are listed as a Species of Special Concern in New York State where they also are protected as a small game species (with no open season). Populations of wood turtles are particularly vulnerable due to their low reproductive potential (including their late age of sexual maturity [usually 15 yrs] and high egg and hatchling mortality). Range-wide, the species is declining due to habitat degradation and both commercial and incidental collecting for the pet trade, a practice that has extirpated entire populations (Garber and Burger, 1995).

Jefferson salamander (*Ambystoma jeffersonianum*)
Jefferson salamanders are considered vernal pool obligates. The salamanders require pools that remain deep long enough to complete metamorphosis. Typical Jefferson salamander breeding pools are ringed with scattered shrub vegetation in upland deciduous forest. Although vernal pols are a limiting habitat parameter for Jefferson salamanders, adults spend a very short period actually using the pools, remaining there only during the breeding season (Pfingsten and Downs, 1989). Consequently, the surrounding forested habitat used during the remainder of the year (including during hibernation) is of utmost importance.

Blue-spotted salamander (*Ambystoma laterale*)
The blue-spotted salamander, also a species of special concern, is more tolerant of disturbed areas and open habitat than is the Jefferson salamander (Klemens, 1993, Pfingsten and Downs, 1989) . Although blue-spotted salamanders also breed in temporary pools, they also use a variety of other habitats including roadside ditches, field ponds, and other wetland habitats. Even though blue-spotted salamanders are most often encountered above ground on wet nights, they also are found under cover objects such as fallen logs and debris (Klemens, 1993).

Small-footed Bat (*Myotis leibii*)
In the Adirondacks small-footed bats overwinter in mines and caves where hibernating populations exceed 500 individuals. Here they roost on exposed ceilings and walls, in cracks and crevices, and under rocks. Summer roosting habitat includes talus slopes, holes in the ground, abandoned swallow nests, and roosts in or near man-made structures (Saunders, 1989).

Significant Habitats

- **Deer Wintering Areas:** Roughly thirteen historical deer wintering areas are located at least partially within the VMWF: Harris Lake, Hudson River (several large linear areas), Northwoods Club, Vanderwhacker Brook, Boreas River (several large linear areas), Thurman Pond, Alder Brook, and Trout Brook. Deer wintering areas are dynamic, so some of these areas may no longer be used or may not hold deer every winter, and other areas may not have been identified as yet.

- **Caves/Bat Hibernaculum:** Of particular historical and natural history interest is a bat hibernaculum located in Burroughs Cave along the Boreas River. In the 1860's, John Burroughs wrote "One afternoon we visited a cave, some two miles down the stream, which had recently been discovered. We squeezed and wriggled through a big crack or cleft in the side of the mountain, for about one hundred feet, when we emerged into a large dome-shaped passage, the abode, during certain seasons of the year, of innumerable bats, and at all times of primeval darkness." In a 4/27/77 survey, 18 little brown bats (*Myotis lucifugus*) were confirmed by DEC personnel. On 4/2/81, DEC personnel recorded 107 little brown bats and two northern long-eared bats (*Myotis septentrionalis*) in Burroughs Cave. These figures suggest Burroughs Cave is a relatively small hibernaculum when compared to others in the Adirondack region. The difference in number of bats counted in each survey can probably be explained by the time of year when the surveys were performed. The 1977 survey was performed towards the end of April, a time when many of the bats may already have ended their hibernation and left the cave. Management recommendations relating to the hibernaculum include: continue to monitor bat use of the hibernaculum; request that spelunking public avoid entering the cave from September 15 through May 15; refrain from developing trails and/or other facilities near the cave.
- **Historic Bald Eagle Nesting Sites:** unknown. No current confirmed nesting documented.
- **Historic Golden Eagle Nesting Sites:** Santanoni Preserve, Newcomb Lake.
- **Historic Peregrine Falcon Nesting Sites:** Lower Ausable Lake, Ragged Mountain, mountains around North River
- **Common Loon:** Newcomb Lake (nesting), Wolf Pond (nesting), Hewitt Pond (nesting).
- **Great Blue Heron Nesting Sites:** unknown
- **Spruce Grouse:** possible breeding in vicinity of the Ausable Lakes.
- **Round Whitefish:** Newcomb Lake
- **Bicknell's Thrush:** prefer peaks over 2,800 feet in elevation with dense subalpine thickets, in particular coniferous forests. Bicknell's thrush prefer dense thickets of young growth of balsam fir and spruce, as well as cherry and birch. Will also utilize heavy second growth of these tree species. Sometimes found below 2,800 feet.

Extirpated Species

The timber wolf, cougar, and lynx may have once inhabited the VMWF. All have disappeared from the Adirondacks. The mammals' disappearance was mostly a result of unregulated harvest and habitat destruction in the 19th century. However, the once extirpated moose population has naturally regained a foothold in VMWF. Projects to reestablish the peregrine falcon, bald eagle, wild turkey and Canada lynx have been conducted and, with the exception of lynx, have been successful. Moose occasionally have migrated from the north and east into the Adirondack region for decades. Since 1980, they have arrived in sufficient numbers to have established a scattered resident population, recently estimated to contain around 200 individuals. A few sightings have been reported in VMWF and moose tracks along trails in the unit are common.

Efforts to reintroduce the peregrine falcon and the bald eagle through "hacking" programs began in 1981 and 1983, respectively. In a continuing program of yearly releases, 103 falcons were "hacked" in the Adirondacks through 1988. In 1985, two falcon nests were found, one to the north and one just to the east of the High Peaks Wilderness. There are two confirmed peregrine falcon nesting sites near VMWF, one on Lower Ausable Lake and another near Chapel Pond. Additionally, there is a possible site on Ragged Mountain. Other historic nesting sites within the unit may come to be occupied as the population expands. Between 1983 and 1985, 55 bald eagles were hacked within the Adirondack region. The first sexually mature eagles produced by the hacking program returned to nest in an area well north of the VMWF. No bald eagles are known to nest within the VMWF; however bald eagles have been observed in the nearby High Peaks Wilderness.

The SUNY College of Environmental Science and Forestry, through the Adirondack Wildlife Program, completed an experimental project to reintroduce the Canada lynx to the Adirondack High Peaks region. Under permit from DEC, scientists based at the College's Huntington Forest campus in Newcomb planned to release up to 100 cats within the HPWC, the upper elevations of which support ideal lynx habitat. The first release of five lynx took place in January 1989; by the winter of 1990-1991, this number increased to 83 released animals. Numerous lynx strayed from the release sites. Vehicle collisions claimed a high percentage of the released animals. At this point, it is highly unlikely that any lynx remain, at least in numbers suitable for a self-sustaining population, and it is doubtful that a permanent lynx population will be established. No breeding has been documented although sightings continue to be reported from time to time.

c. Fish

Fish communities in the Adirondacks are a result of geological and human influences. Prior to human influences relatively simple fish communities were common. Human-caused changes in habitat and introduction of fishes have altered those natural communities.

Geological History

The Fishes of the Adirondack Park, a DEC publication (August 1980) by Dr. Carl George of Union College, provides a summary of geological events which influenced the colonization of the Adirondack ecological zone by fishes. A limited number of cold tolerant, vagile, lacustrine species closely followed the retreat of the glacier. Such species presumably had access to most Adirondack waters. About 13,000 BP (before present) glacial Lake Albany, with a surface elevation of 350' a.s.l. (average sea level), provided a colonizing route for Atlantean and eastern boreal species to portions of the Hudson Watershed. Barriers above that elevation would have excluded those species from interior portions of the Adirondacks.

By about 12,300 BP, the Ontario lobe of the glacier had retreated sufficiently to allow species associated with the Mississippi drainage access to fringes of the Adirondacks via the Mohawk Valley and the St. Lawrence drainage including Lake Champlain. Lake Albany had apparently drained prior to that, as barriers had formed on the Lake George outlet.

The sequence of colonization routes to surrounding areas, combined with Adirondack topography, resulted in highly variable fish communities within the Adirondacks. In general, waters low in the watersheds would have the most diverse communities. The number of species present would have decreased progressing towards headwater, higher elevation sections. Chance and variability in habitat would have complicated the trends. Consequently, a diversity of situations, from no fish to monocultures to numerous species, occurred in various Adirondack waters.

Acid Precipitation

The phenomenon of acid ion deposition, popularly known as "acid rain," has had little impact on the fisheries resources in the Vanderwhacker unit. The pH ranges from 5.9 to 7.8 on most area ponds for which chemistry data is available. Values of pH less than 7.0 represent acidic conditions, but fish species found in Adirondack ponds are very tolerant of pH values down to 6.0. Values of 5.0 and below are considered to be severely detrimental to aquatic life. Although 23 of the waters have not had water chemistry surveys (Appendix B, beginning on page 125), those waters are either small or are contiguous with larger water bodies where chemistry data is available.

Brook Trout
The available information suggests that brook trout were well represented in the unit but their exact distribution remains obscure because the area was heavily impacted by the early establishment of non-native species. Today brook trout are maintained principally through routine stocking and by reclamation.

Streams
Major streams in the Vanderwhacker Unit include the Boreas River, Vanderwhacker Brook and Minerva Stream. Many additional small streams are also present. The Hudson River borders portions of the unit. Fisheries resources and management for the Hudson River will be discussed in the Hudson Gorge Primitive Area Unit Management Plan and will not be reviewed herein.

The Boreas River and its main tributary, Vanderwhacker Brook flow through the central portion of the Vanderwhacker Unit. In addition, portions of Minerva Stream flow through the unit. These streams and their tributaries support coldwater communities of fishes including: brown trout, brook trout, cutlips minnows, common shiners, blacknose dace, longnose dace, northern redbelly dace, creek chub, white sucker and slimy sculpin. In addition, smallmouth bass, a warmwater species, have been collected in portions of the Boreas.

3. Visual/Scenic Resources/Land Protection

a. Travel Corridors
The main corridors for automobile traffic through VMWF are State Route 28N and Blue Ridge Road, also known as Boreas Road. Route 28N is the main route from North Creek to Newcomb and offers many spectacular views. In particular, between North Creek and the Warren-Essex line one is presented with several excellent views of the cliffs of Moxham Mountain. As 28N winds through the hamlet of Minerva, it offers beautiful vistas of Green Mountain and Snyder Hill in VMWF and the peaks of Hoffman Notch Wilderness Area beyond. Further north, the State Highway climbs up into VMWF and weaves its way through lush hardwood forests, past the picturesque vale of Balfour Lake, and on through the thick forests of spruce, fir, and pine on either side of the Boreas River, occasionally rounding a corner to offer a brief, yet dramatic glimpse of the sheer slopes of the High Peaks to the north.
Blue Ridge Road is also quite scenic as it threads its way between North Hudson and Newcomb. Not far from Cheney Pond, there is a scenic pull-off to the top of a small knob, offering fabulous views of the Boreas River and Minerva Stream valleys to the south.

Additionally, the APSLMP lists a spot in VMWF along Barton Mines Road three miles south of the hamlet of North River as a Scenic Vista, or potential scenic pull-off.

b. Observation Points
VMWF's namesake offers the best opportunity for panoramic vistas on the unit. Although the summit of Vanderwhacker Mountain is thick with tall firs and birches, the fire tower atop it presents a 360° view to anyone inclined to climb it. From the tower, the views of the High Peaks are magnificent. The course of the Boreas River can be followed to the Hudson, as the spectacular scenery of the Adirondacks spreads out for many miles before the intrepid climber.

Another sensational summit within VMWF is the so-called fourth peak of Moxham Mountain, known on recent USGS quadsheets as Maxam. The mountain gets its name from Robert Moxham, who surveyed Dominick's Patent in 1798. Its summit may have been used in Verplanck Colvin's surveys of the area, explaining the remnants of a Colvin tower at its summit and why it is known locally as Signal Mountain.

From atop its dizzying cliffs, one can spy Gore Mountain and Pete Gay Mountain to the south, as well as various peaks along the Hudson River and its gorge. Moxham offers a view, ranging 180°from the northwest to the southeast, strewn with myriad Adirondack peaks stretching to the horizon. A proposed trail to this summit, capitalizing on its awe-inspiring views, is discussed in Section IV of this UMP.

There are several lesser peaks and ledges in VMWF that deliver rewarding views to anyone ready to leave the beaten path. These include Green Mountain, its many rocky outcrops offering views of the Minerva Stream valley and beyond, Dutton Mountain with glimpses up the Hudson River Gorge, and Snyder Hill whose steep sides offer many a scenic vista.

c. Other Natural Areas

Other significant natural areas include the Boreas River and the many lakes and ponds of VMWF. Indeed, the Boreas River is quite scenic and in particular, the Boreas River Loop trail parallels a particularly interesting portion of the river as it drops dramatically in a series of rapids above Hewitt Eddy. Along the banks of the Boreas, near to where Vanderwhacker Brook enters it, impressive stands of large white pine can be found. Other exemplary stands of large diameter white pine are located on high spots among the wetlands of the north branch of Wolf Creek. Examples of noteworthy stands of northern hardwoods, including large diameter sugar maple, yellow birch, and eastern hemlock, exist on the east side of the Boreas and to the north of the Northwoods Club Road. This area is recognized in the APSLMP (pg 101) as “Boreas Hardwood” [sic].

4. Rare Ecological Communities -

The New York Natural Heritage Program (NYNHP) is a cooperative effort between The Nature Conservancy and DEC to identify, inventory, and provide information on the occurrence of rare plants and animals and exemplary natural communities in New York State. The Vanderwhacker Mountain Wild Forest has not had a complete survey of significant communities. However the NYNHP has identified five significant communities located at least partly within the boundaries of VMWF, two of which are considered to be the best example of their respective type in the Adirondacks.

The first two communities are located on the shores of Lake Harris in the town of Newcomb. The first community, an “Inland Calcareous Lake Shore”, occupies a narrow band (2-8 meters wide) around parts of the lake shore. The community is described as graminoid dominated, typically sparse in shrub species, but with an overhanging tree canopy of mostly northen white cedar and balsam fir. The soils are a mix of calcareous and acidic sands. In general, this community occurs intermittently along the shores of the lake, and is indicated by the NYNHP to be the best known northern Appalachian variant in New York. This community has a global rank of G4? and a state rank of S3S4 (for an explanation of ranks and a map, see Appendix D, page 146). The community occurs on private and public land along the lakeshore. The management recommendations made by NYNHP that relate to VMWF suggest minimizing soil and vegetation disturbance, and maintaining natural water level fluctuations. There are no VMWF facilities on or near the shoreline where the community occurs, and none are proposed in this UMP. Public use of these parcels is not currently threatening this community. Therefore, no actions are planned for further protection of these sites beyond continued monitoring by NYNHP.

The second significant community, a “Limestone Woodland”, occurs in small patches in general proximity to the first community. It is characterized by 90% tree cover including mostly northern white-cedar, eastern hemlock and yellow birch, and limestone outcrops. This community has a global rank of G3G4 and a state rank of S2S3. Again, its location on VMWF is similar to the first plant community, as are the management recommendations made by NYNHP. Therefore, no action beyond continued monitoring is advocated.

The third significant community, noted as "Maple-Basswood Rich Mesic Forest", is known to exist in at least one area of VMWF, where it covers approximately 25 acres, all of which is located on state land. This forest type typically occurs on middle to lower elevation, concave slopes with north or east aspects and includes sugar maple, basswood, and white ash as the dominant trees. This plant community is common in the western and central portions of the state, but less common to the Adirondacks. The community has a global rank of G4 and a state rank of S2S3. There are no facilities located within this community, nor are any proposed in this UMP. Therefore, no action beyond continued monitoring is advocated.

The fourth and fifth unique communities, an "Aquatic Cave Community" and a "Terrestrial Cave Community", exist in Burroughs Cave. Both community types have global ranks of G4 and state ranks of S3S4. The cave is considered the best example of an Aquatic Cave community in the Adirondacks. More data on this community are needed (Reschke). Characteristic bats that hibernate in Terrestrial Cave Communities include little brown bat (*Myotis lucifugus*), Keen's bat (*Myotis keenii*), big brown bat (*Eptesicus fuscus*), and eastern pipistrelle (*Pipistrellus subflavus*). As discussed earlier, Burroughs Cave has been known to support hibernating little brown bats, as well as northern long-eared bats (*Myotis septentrionalis*). There are no facilities located in or near Burroughs Cave, nor are any proposed. Management recommendations relating to the cave include: continue to monitor bat use of the hibernaculum; request that spelunking public avoid entering the cave from September 15 through May 15; refrain from developing trails and/or other facilities near the cave.

Three other exemplary communities have been identified on private land in close proximity to lands of the VMWF. These are a "Mesotrophic Dimitic Lake" (Rich Lake, Newcomb), a "Rich Graminoid Fen", and a "Medium Fen" (both in Newcomb). Descriptions of these community types are found in *Ecological Communities of New York State* (Reschke) or can be viewed at www.dec.state.ny.us/website/dfwmr/heritage/EcolComm.htm.

B. Man-Made Facilities

Trails and Roads

Designated Foot Trails	Length (miles)
Hewitt Pond trail	5.0
Tower trail	2.5
Boreas River Loop trail	2.0
Hoffman Notch trail (north end)	2.0
Camp Santanoni - Lake Harris Campground trail [2]	1.5
Rankin Pond trail	0.4
Roaring Brook trail	0.4
Rabbit Pond and Oak Ridge trails	0.4
Center Pond trail	0.2
Total	**14.4**

[2]This trail was apparently marked after the adoption of the APSLMP but before the development of a UMP for VMWF without consultation with the APA. This plan proposes to adopt the trail formally.

Snowmobile trails	Length (miles)
Cheney Pond - Irishtown trail	9.5
Vanderwhacker trail (currently closed) (includes 1.0 mile of foot trail)	8.0
Stony Pond - Irishtown trail	5.8
Linsey Marsh trail	2.0
Horseshoe Pond trail	0.9
Charley Hollow trail	0.85
Thilo trail	0.75
Thilo trail (northwest branch)	0.35
Horseshoe Pond bypass	0.2
	Total 28.35

Motor Vehicle Roads	Length (miles)
Moose Pond Road	3.6
Cheney Pond access road	0.7
Horseshoe Pond Road	0.9
Thilo Road	0.75
Charley Hollow Road	0.3
Sunnyview Farm road	0.2
	Total 6.45

Administrative Roads (closed to the public)	Length (miles)
Roosevelt Truck Trail	2.5
Oliver Pond fish barrier dam access	0.05

Brief Description of Origins of VMWF Trails and Roads

Hewitt Pond foot trail - may have been built as early as the late 19th century for fishing access to Hewitt and Barnes Ponds, and exists on maps from 1901. Some sources believe it was built by Michael Cronin, proprietor of Aiden Lair in the late 1800's; unknown when connection from Barnes Pond to Stony Pond was constructed but appears to be remnant of an old tote road.

Tower trail - presumably built during or before 1911 to provide access to Vanderwhacker summit.

Boreas River Loop trail - southern half exists on 1901 quadsheets as trail extending from 28N to the Moose Pond Club, date of construction of northern half unknown.

Hoffman Notch trail (northern end) - historic route through the notch; was a designated snowmobile trail until adoption of the APSLMP made it a non-conforming use and it became a foot trail.

Camp Santanoni -Lake Harris Campground connector - probably derived from herdpath between the two facilities; probably marked with DEC trail markers in 1980's to encourage use of a single path. This UMP proposes that the trail be officially adopted.

Rankin Pond trail - unknown, presumably derived from herdpath for fishing access.

Roaring Brook, Rabbit Pond, and Oak Ridge trails - presumably built in connection with ski use of Little Gore, perhaps as early as the 1920's.

Center Pond trail - has been a popular fishing site over the years, and there have been many trails leading to it as indicated on past USGS quad sheets.

Cheney Pond - Irishtown snowmobile trail - northern 2 miles served as motor vehicle access to Lester Dam for log drives until 1950; much of the remaining mileage existed prior to 1897 as part of a road from Irishtown to the other dams on the Boreas River... LaBier Dam, Brace Dam, and Boreas Ponds Dam; has served as a snowmobile trail, at least since the 1960's.

Vanderwhacker snowmobile trail - the majority of the trail exists on USGS quadsheets of Newcomb from 1901 and 1954 (labeled as a jeep trail), and is reputed by some to have been an original route to the summit of Vanderwhacker Mountain; there are a handful of sites along the trail that may have been old farms or homesteads at one time; has served as a designated snowmobile trail over the years, but is currently closed. Its future status as a snowmobile trail will be determined through this UMP process.

Stony Pond - Irishtown snowmobile trail - southern end (almost as far as Big Sherman Pond) presumably built originally for access to iron mine on Green Mountain in the latter half of the 19th-century; section between the Sherman ponds and Stony Pond exists as a trail on the 1953 USGS quadsheet, presumably for hunting and fishing access, although the original trail may have been on the east shore of Big Sherman Pond until beaver activity raised the level of the pond and flooded the low causeway between Big and Little Sherman Ponds; origin of northwestern end unknown but may have been built shortly after 1950 for the removal of forest products after the blowdown; exists on 1954 USGS Newcomb quadsheet as a "jeep trail", but is not found on 1953 USGS Schroon Lake quadsheet; has served as a snowmobile trail probably since the 1960's.

Linsey Marsh snowmobile trail- obviously an old road for some of its length, date or purpose of construction unknown; several old foundations along trail; has been used as a snowmobile trail (presumably since the 1960's) and foot trail over the years.

Horseshoe Pond bypass snowmobile trail - does not appear on USGS quads; was built by the Conservation Department in the late 1960's in an effort to improve snowmobile trail connections in the Town of Schroon (personal communication - H. Lashway).

Moose Pond Road (also known as Vanderwhacker Road) - provides the only motor vehicle access to the private Moose Pond Club inholding as well as the Vanderwhacker Mountain Tower trailhead. The original road followed the course of the southern half of the Old Military Road and then the western half of the current Moose Pond Road. In 1892, the eastern half of the road was built as it appears today, taking advantage of the state bridge over the Boreas River. This road is used almost daily in the non-winter months by the private owners of Moose Pond Club and by the public.

Cheney Pond access road - presumably built at the same time as the Lester Dam access road to provide access to the pond for log drives, and has been open to public motor vehicle use since state acquisition. This road sees frequent public motorized vehicle use due to the popularity of Cheney Pond to recreationists of all kinds.

Sunnyview Farm Road - the road leaves Fourteenth Rd. just east of where it becomes, according to the current Dutton Mountain USGS quadrangle, a 4WD trail; the road, which appears on the 1901 Newcomb quadrangle, served as access to the privately held Sunnyview Farm until state acquisition in the 1980's. Motorized public use of the road is likely limited to the occasional hunter.

Roosevelt Truck trail - was likely built in the 1930's by the CCC for reforestation as there are extensive softwood plantations along much of its length. Other evidence suggests that it may have been built earlier than this. It may have served as a route from residences along Blue Ridge Road to the former schoolhouse on 28N just north of Aiden Lair. Also may have served as an access road for fire suppression activities over the years. It is gated and closed to the motoring public.

Oliver Pond fish barrier dam access road - presumably built in 1965 to aid in the construction of the Oliver Pond fish barrier dam.

Muller Pond Cemetery access road - part of original road around the south end of Muller Pond that junctions with Hoffman Road at both ends. Several old farm sites are located off of and along this road. Exists on maps from the early 1900's.

West end of Thilo Road - exists on 1897 USGS Schroon Lake quadsheet as a connection between Trout Brook Road and Charley Hill Road.

Other Facilities

Parking Lots Total 13	Capacity
Vanderwhacker Mtn. trailhead	4
Moose Pond Rd near 28N	4
Stony Pond trailhead[1]	3
Blue Ridge Rd & Boreas River[2]	6
Hewitt Rd (east end)[2]	5
Cheney Pond[1]	4
Rankin Pond trailhead	1
Roosevelt Truck trail (south end)	2
Oliver Pond	2
Muller Pond	4
Linsey Marsh trailhead[1]	5
Boreas River Loop trail[1]	2
28N & Boreas River	5

Trail Registers Total 4	Location
Vanderwhacker Mountain	Moose Pond Road
Hewitt Pond	Hewitt Road
Stony Pond	Route 28N
Boreas River	Route 28N

[1]pull-off along road shoulder

[2]town or county snowplow turn-around

Primitive Campsites Total 38	Number
Moose Pond Rd	6
Boreas River & 28N	5
Cheney Pond (east shore)	1
Cheney Pond (west shore)	1
Cheney Pond overlook	1
Oliver Pond	2
Boreas River & Blue Ridge Rd	2
29th Pond	1
Vanderwhacker Mtn. trailhead	1
Northwoods Club Rd & Boreas River	6
Northwoods Club Rd & Huntley Pond	1
elsewhere along Northwoods Club Rd	3
Roosevelt Truck Trail - south end	1
Newcomb Lake (near Santanoni)	3
28N and Vanderwhacker Brook	1
14th Road at Deer Brook	1
14th Road at Sunnyview Farm Road	1
Boreas River at Lester Dam	1

Pit Privies Total 18	Number
Moose Pond Rd	4
Boreas River & 28N	2
Cheney Pond	2
Stony Pond	1
Oliver Pond	1
Muller Pond	1
Newcomb Lake campsites	3

Boreas River & Blue Ridge Rd	1
Boreas River & Northwoods Club Rd	3

Buildings Total 4	Location
Observer Cabin (old)	Vanderwhacker Mtn. tower trail
Observer Cabin (new)	Vanderwhacker Mtn. tower trail
Ranger Cabin	28N & Minerva-Newcomb town line
Garage (storage)	28N & Minerva-Newcomb town line

Fireplaces Total 13	Number
Northwoods Club Road campsites	2
Cheney Pond campsite	1
Route 28N & Boreas River campsites	5
Oliver Pond	4
Stony Pond lean-to	1

Gates

Total 4

Roosevelt Truck Trail & Blue Ridge Rd

Roosevelt Truck Trail & 28N

Cheney Pond snowmobile trail (north end)

Chaisson Rd (Newcomb)

Bridges

Total 12

Type	Location	Quantity
Foot	Hewitt Pond Foot Trail	4
Foot	Muller Pond Outlet	1
Snowmobile	Linsey Marsh Trail	1
Snowmobile	Vanderwhacker Trail	3
Vehicle	Moose Pond Road	1
Vehicle	Roosevelt Truck Trail	1

Lean-to (1)
Stony Pond

Fire Tower (1)
Vanderwhacker Mountain

Fish Barrier Dam (1)
Oliver Pond (Schroon)

Water Flow Gauge (1)
outlet of Nate Pond (Minerva)

Signs
There are a limited number of signs located in the unit including trailhead signs, fishing and camping regulations posters, and directional signs. At present, the level of signage is appropriate to the unit.

Bog bridging
There is a 550' section of bog bridging at the northern end of the Hewitt Pond foot trail on the fringes of a spruce-fir swamp associated with Stony Pond Brook and the western outlet of Hewitt Pond. The bog bridging is constructed of logs and rough lumber and is in fair condition.

C. Past Influences

Historic and Archaeological Resources

The term “cultural resources” encompasses a number of categories of human-created resources including structures, archaeological sites and related resources. The Department is required by the New York State Historic Preservation Act (SHPA - PRHPL Article 14) and SEQRA (ECL Article 8) to include such resources in the range of environmental values that are managed on public lands. The Adirondack Forest Preserve was listed as a National Historic Landmark by the National Park Service in 1963. This designation also results in automatic listing in the State and National Registers of Historic Places.

Within the Forest Preserve, the number of standing structures is, in general, limited due to the requirements of the APSLMP. Often those that remain are structures that relate to the Department's land management activities such as fire towers, ranger cabins and related resources. Fire towers, as a class of resources, have been the subject of considerable public interest over the last decade. The majority of surviving fire towers have been found eligible for inclusion in the State and National Registers of Historic Places and a number of towers were formally listed in the Registers in 2001. For state agencies, Register listing or eligibility are effectively the same; obligating the Department to treat these resources appropriately and requiring that special procedures be followed should it be necessary to remove or otherwise affect these resources. This formal listing is in addition to the SHPA Memorandum of Agreement relating to fire towers that the Department signed with OPRHP in 1994. This agreement was designed to accommodate the requirements of the APSLMP and the SHPA. The Vanderwhacker Mountain fire tower is eligible for inclusion in the State and National Registers of Historic Places. A recent evaluation by OPRHP has found that the Ranger Cabin located along Route 28N meets eligibility criteria, as well.

Archaeological sites are, simply put, any location where materials (artifacts, ecofacts) or modifications to the landscape reveal evidence of past human activity. This includes a wide range of resources ranging from pre-contact Native American camps and villages to Euro-american homesteads and industrial sites. Such sites can be entirely subsurface or can contain above ground remains such as foundation walls or earthwork features.

As a part of the inventory effort associated with the development of this plan the Department arranged for the archaeological site inventories maintained by the New York State Museum and OPRHP to be searched in order to identify known archaeological resources that might be located within or near the unit. The two inventories overlap to an extent but do not entirely duplicate one another. The purpose of this effort was to identify any known sites that might be affected by actions proposed within the unit and to assist in understanding and characterizing past human use and occupation of the unit.

The quality of the site inventory information varies a great deal in all respects. Very little systematic archaeological survey has been undertaken in New York State and especially in the Adirondack region. Therefore all current inventories must be considered incomplete. Even fewer sites have been investigated to any degree that would permit their significance to be evaluated. Many reported site locations result from 19th century antiquarian information, artifact collector reports that have not been field verified. Often very little is known about the age, function or size of these sites. This means that reported site locations can be unreliable or be polygons that encompass a large area. Should systematic archaeological inventory be undertaken at some point in the future it is very likely that additional resources will be identified. The results of these site file checks are presented in Appendix F.

The archaeological inventory of the Vanderwhacker Mountain Wild Forest reflects the known general characteristics of the area's history. No precontact Native American sites are known within the unit but several have been identified in the immediate area, primarily along major watercourses. Euro-American sites within the unit reflect land use prior to state acquisition. These include a number of farmstead sites and the remains of mining and logging operations. The results of the site file checks are shown in Appendix F.

Evidence of human settlement and occupation exists throughout VMWF. Old farm clearings, stone and barbed wire fences, foundations, softwood plantations, old hunting camps, and woods roads and trails exist in many places in the unit including sites along 14th Road, near Cheney Pond, around Balfour Lake, along Charley Hollow Road, and countless other locations. Since almost all of the area was logged and/or settled, few locations within the unit are without evidence of human interference.

A list of locations of cultural significance would include the 19th century cemetery on state land to the west of Muller Pond. The Town of Schroon has traditionally maintained the cemetery, usually in one maintenance visit each year. Interestingly, at least one Vanderwarker is buried in this cemetery. There is another cemetery on the unit from the same era, also in the Town of Schroon. It is likely known only by locals and does not appear to be maintained by anyone.

Also, several old roads and dump-sites are located on portions of the former Scaroon Manor property within the borders of VMWF. Additionally, portions of the original Santanoni Preserve that were not included in the final boundary of the Camp Santanoni Historic Area contain ruins associated with the Great Camp, and are located in VMWF.

2. Historic Sites - Two documented archeological sites are located in the unit and are listed in Appendix F. These were 19th century industrial sites owned by the Minerva Iron Company under E.H. Rosenkrans and J.C. Durand. The sites were active for a brief period in the 1870's and were used for the extraction of iron ore. Other sites located on state and private land within two miles of VMWF are also listed and include sites predating Euro-american settlement, as well as additional 19th century industrial sites. It is quite likely that additional sites of historic value are located on VMWF, but have not been found or recorded. The Department will record the locations of additional sites upon discovery.

Other historically significant sites include the fire tower on Vanderwhacker Mountain and its associated observer's cabins, the many old dams used in the river drives of the 19th and 20th centuries, and the CCC-era ranger station and garage on Route 28N near the Newcomb-Minerva town line. Other sites of historical and cultural significance are listed on page 4, earlier in this document.

D. Public Use

1. Land Resources

A wide variety of activities are allowed on VMWF and its facilities due to its land classification under the APSLMP. Most trails in the unit are used by a variety of recreationists including those interested in hunting, fishing, hiking, skiing, snowmobiling, bicycling, and snowshoeing. Bicycle use is occasional, due to the rough character of many of the unit's trails. Most users of VMWF travel by foot or snowmobile.

The Department monitors trail use by voluntary registration. Trail registers are located at the following trailheads: Boreas River Loop, Hewitt Pond, Stony Pond, and Vanderwhacker Mountain. The public's use of the registration boxes varies depending on register location, time of visit, entry hours, length of stay, and group size. These variables generally result in inaccurate and often incomplete data. However, patterns and general levels of use can be gleaned from existing register information. Register information for VMWF trails is listed below.

In the following table, the first number for each trail represents the total number of entries for that year. The second number represents the total number of registered visitors. The third number, where present, represents the visitor-days, a number which allows one to measure the registered overnight use associated with a particular entry point.

	Boreas River loop foot trail[1]			Hewitt Pond foot trail			Stony Pond snowmobile trail			Vanderwhacker Mtn. foot trail		
year	entries	visitors	days	entries	visitors	days	entries	visitors	days	entries	visitors	visitor-days
1994	27*	85*	–	33	81	–	189	453	–	272	750	–
1995	222*	551*	–	19	44*	–	279	622	–	235	698	–
1996	201*	498*	–	33	67	–	224	644	–	241	612	–
1997	36*	80*	–	21 †	32 †	–	208	539	–	305	815	–
1998	223*	595*	–	27 †	72 †	–	35*	106*	–	297	758	–
1999	–	–	–	26 †	49 †	–	226	562	–	297	737	–
2000	–	–	–	24	60	–	150*	382*	–	308	787	–
2001	–	–	–	20 †	30 †	30 †	200	532	597	319 †	787 †	813 †
2002	–	–	–	35	68	82	221	473	545	326 †	866 †	878 †
2003	–	–	–	20	34	36	182	455	473	309	768	818

* denotes partial data - not all register pages were recovered for this location and time period
† denotes estimated data - generally 1 month or less has been estimated using data from other years
– denotes no data available

Of course, the value of these numbers is questionable for several reasons, including most obviously, a lack of complete data for all registers, due to missing pages. There is an obvious need to improve data collection for the above trails and to obtain use data for DEC trails and facilities for which there are no registers. These proposals will be discussed later in this document in the Management Recommendations section.

A few conclusions can be drawn from the above data:

- Approximately 1,300 visitors annually sign in at the three remaining trailhead registers.
- On average, registered users travel in small groups; generally of 2-3 people.
- The majority of registered use occurs at the Vanderwhacker Mountain tower trail.
- The majority of registered use at Vanderwhacker Mountain occurs during the mid- and late-summer months, and there is little registered winter use in comparison. This is expected, since the 3 mile distance from Route 28N to the trailhead is not plowed in winter.
- Most registered overnight use occurs at the Stony Pond trail. Registered overnight use at the Vanderwhacker Mountain trail is low, especially when one considers that much of that registered use in the last few years can be attributed to Student Conservation Association work crews completing trail maintenance projects on and around the mountain.
- The Stony Pond trail experiences highest registered use in July, August, and September as well as a spike in use in late April and early May, corresponding with the opening of the trout season.

[1]Boreas River register was relocated in 2004 in an attempt to improve data retention. In its previous location, the register was often vandalized and the register sheets destroyed..

- The Hewitt Pond trail receives little registered use, particularly in the winter months.
- There is a problem with data retention at the Boreas River loop trail. (Note: This trail register was relocated in 2004, following the release of the Draft UMP for Public Review).
- Limited data make it difficult to quantify public use of the VMWF.

Furthermore, register numbers for the Stony Pond snowmobile trail probably do not reflect actual snowmobile use, in part due to the location of the trail register at just one end.

Additionally, significant seasonal use during big game season is rarely captured by trail registration data. Many hunters access the unit along its periphery, and not always at Department trailheads.

Missing pages for the Boreas River Loop trail register is an obvious problem. For the years 1994 and 1997, many of the spring and summer months are missing, but the other years generally lack two months of data or less. Up until 2004, this register was directly adjacent to the trail parking area, so any pages were missing due to vandalism. In an effort to improve use figures for this trail, the register was relocated in the summer of 2004.

New trail registers will be installed at trailheads where they do not currently exist, in order to capture public use data over the unit. A recently developed Standard Operating Procedure (SOP) outlining responsibilities of DEC Forest Rangers and Foresters in Region 5 related to trail register data should help to improve collection, retention, and reliability of public use data.

For the most part, impacts of use on trails in VMWF are relatively minor due to relatively low use. Most trails have suffered from a lack of regular maintenance and need additional funding, which has generally been more responsible for any resulting resource degradation. Poor design and layout (coupled with some level of use) have resulted in erosion on portions of the Vanderwhacker Mountain tower trail. For this particular trail, a re-route around a particularly steep section is proposed in Section IV of this plan. Furthermore, due to the grade, design, and expected increase in future use of the tower trail, it should receive priority when planning trail maintenance activities. According to trail register figures, the Stony Pond snowmobile trail experiences the next-highest degree of registered use in the unit. Most of that use probably occurs from foot traffic between 28N and Stony Pond. Consequently, that portion of the trail appears to be most impacted by use and should be the second priority for trail maintenance activities in the unit. For this particular trail, a number of activities are proposed in Section IV of this plan.

Other negative impacts have occurred at Oliver Pond and Muller Pond, including soil compaction, injury to and death of vegetation, and eroding of the ponds' banks. For these locations, management actions are proposed later in the plan to restrict vehicles from the ponds' edges and contain parking to well-defined areas. Heavily-used campsites on the Northwoods Club Road and at Cheney Pond have caused minor impacts, including trampling of vegetation, soil compaction and erosion.

Non-designated and user-created campsites are known to exist at several locations in VMWF, although it is likely that not all have been found. Known sites occur at the following locations: off-trail on Dutton Mountain; along the Vanderwhacker Mountain tower trail (one several hundred yards above the observer's cabins and one a similar distance below); along Moose Pond Road; along the Vanderwhacker snowmobile trail (where it crosses the North Branch of Wolf Creek); at Brace Dam; north of Brace Dam on the old Lester-La Bier-Brace road; on Hotwater Pond; on Muller Pond; on Nate Pond; at the east end of Hewitt Pond; at Sunnyview Farm. For the most part, these sites are not heavily used and impacts are low. An exception is the Muller Pond site. This non-designated site can be directly reached via motor vehicle and is located too close to the pond. Consequently, overuse here has lead to adverse impacts to the site. Management actions proposed later in the plan will address this problem. In general, for other

non-designated and user-created sites, if they are used only rarely (five times per year or less) and are causing no noticeable adverse impacts, they will remain. If they are well-used, appropriately located, and Limits of Acceptable Change standards for vegetation and soil are not being exceeded (see Capacity to Withstand Use discussion later in this section), they will be officially designated. If they are overused and are causing significant adverse impacts, they will be either relocated or closed.

Projecting future demand and use of the VMWF is difficult, to say the least. Economic changes have the potential to affect annual use of the area as much as weather patterns. When the national or regional economy takes a down turn people tend to take less expensive vacations and take them closer to home. The proximity of the Adirondack region to major eastern metropolitan centers makes primitive camping an attractive alternative. A strong Canadian dollar may increase the number of Canadian visitors to the region. Conversely, the aging of the baby-boomer generation may reduce the overall population interested in primitive backcountry recreation activities. Uncertainty in the future underscores the importance of monitoring use and health of the Forest Preserve so that adverse impacts can be identified and addressed early.

The Vanderwhacker Mountain tower trail is likely to see increased use, due to the recent formation and activities of a "Friends of" group and the general rise in use seen at other towers in the Park. Existing data suggest that registered use has not increased significantly within the last ten years and that current registered use is quite low and may actually be among the lowest in the Park, when compared to other tower trails. Annual registered users of the Vanderwhacker tower trail typically number around 800. Other tower trails generally see much higher registered use; Wakely Mountain - 2,000 people annually on average; Hadley Mountain - 14,000 people annually on average; Blue Mountain - 13,000 people annually on average. Goodnow Mountain, which is located on private property nearby, has averaged 4,000 to 7,000 registered users annually over the past ten years. The Vanderwhacker Mountain tower trail, however, possesses certain characteristics that will likely limit a potential increase in use due to the activities of the "Friends" group: the Moose Pond Road is unplowed in winter; said road is unpaved and may dissuade owners of low-clearance vehicles from proceeding; the tower is located relatively distant from population centers; and other more easily accessed towers and open peaks are nearby. However, in preparation for an increase in use that will likely occur, certain trail projects, as described in Section IV, should be implemented. This trail should also receive high priority for maintenance.

Use of some of the unit's other trails (for instance, the Linsey Marsh, Rankin Pond, Hewitt Pond, Boreas River loop, and Cheney Pond trails) cannot be expected to increase greatly if past trends in the unit can be used as an indicator of future use. For example, registered use at the Hewitt Pond, Boreas River loop, and Stony Pond trails (albeit spotty) has remained relatively stable over the last ten years. Snowmobile use of the Stony Pond trail, however, can be expected to increase, if the trail is used in the overall snowmobile connection between Newcomb and Minerva - as is proposed in this UMP. Just how much of an increase it will see, however, is difficult to predict. Current registered use is quite low and well within the capacity of the trail to withstand use. It is suspected that snowmobile use is not well-represented by the available use figures for that trail, due to the absence of a trail register at the south end of the trail, but personal observations by DEC staff indicate that the trail sees relatively low levels of snowmobile use.

Mountain bike or All-Terrain Bicycle (ATB) use is expected to remain relatively low on most trails in the VMWF. Few trails in the unit are particularly attractive to most ATB'ers, because most trails are too steep, too rough, too wet, too short, or unconnected to other ATB routes. An exception might be the trail proposals connecting the Lake Harris Campground with Santanoni. Since ATB use on the Newcomb Lake Road is well-established, an expanded network in this area may attract increased numbers of ATB'ers. However, LAC indicators and standards on soil erosion and impacts to vegetation will be

developed to monitor and address negative impacts, if needed. Seasonal closures will also be utilized, if necessary. The potential for increased conflicts between equestrian users and ATB'ers exists, given new ATB trail construction in this area, but reported instances of user conflict on Newcomb Lake Road have been relatively low. Most users expect to see a wide variety of recreationists using the road, and thus are considerate and appropriately careful. Signage making users aware of the types of other uses they may encounter during their trip and encouraging them to follow trail etiquette, such as IMBA's "Rules of the Trail", will go a long way towards reducing user conflict, should it increase significantly.

In other Forest Preserve UMPs, DEC planners have indicated that an observed recent decline in trailhead registrations in the nearby High Peaks Wilderness Area, thought to have occurred due to the recent adoption of use restrictions in that unit, may be leading to user displacement to other nearby Forest Preserve units, including the Dix Mountain Wilderness and the Giant Mountain Wilderness Areas. However, they suggest that displaced users are seeking Forest Preserve units with similar characteristics. This may lead to some slight increase in use of the VMWF, but is much more likely to affect other nearby Forest Preserve units, such as the DMWA, the GMWA, the Hurricane Mountain Primitive Area, the Sentinel Range Wilderness, or the Jay Mountain Wilderness. These areas have the similar characteristics, such as the high-elevation open peaks and the "Wilderness" classification, that users of the HPWA typically seek. Users looking to "bag" a 4,000 ft open peak, like Marcy, Gothics, or Haystack, are likely to be disappointed by the VMWF.

Unauthorized Use

There are several access roads (not currently maintained by local or state government) over VMWF that lead to private land and are occasionally used by the public as well as private landowners and their guests to access their land via ATV and 4WD vehicles. These include:

- Four wheel drive road across state land on lot 37, Township 26, Town of Minerva. This accesses the private inholding on lot 38, owned by Finch, Pruyn & Company, Inc. The length on state land is approximately 0.25 miles. It is used by the owner and their lessees.
- Road across lot 16, Thorn's Survey, Township 27, Town of Newcomb. This accesses an inholding on lot 25, owned by Finch, Pruyn & Company, Inc. The length on state land is approximately 0.25 miles. It is used by the owner and their lessees.
- Stony Pond - Irishtown snowmobile trail. The southern end is occasionally driven by ATV's as far as Big Sherman Pond.
- Cheney Pond - Irishtown snowmobile trail. The southern end is driven by ATV's, presumably by owners of the private inholdings near Mud Pond and their guests to access the properties.
- Road across Lots 118 and 119 in Township 26, accessing an inholding on lot 118. The length on state land is approximately 0.75 miles. A TRP was issued in 1997 allowing the owner to use the road in the removal of forest products. However, there is no known deeded right-of-way to this property across state land.
- Access road across Lot 32 of Thorn's Survey of Township 27 to reach privately-owned camp on Lot 22
- Access road across Lot 46 of Bailey's Patent in Township 25 to access private property on Lot 47.

Department maintenance occurs only on those trails listed above that are designated snowmobile trails. However, such maintenance is designed with the effects of foot and snowmobile traffic in mind, not motorized vehicles. Impacts to the Stony Pond trail -though relatively minor - include minor erosion and rutting. However, potential effects along the Cheney Pond trail are more significant, given the several

crossings of Minerva Stream and its tributaries. Motorized use on several of the above access roads - including the Lot 118 access road and the Lot 38 access road - has lead to severe erosion of the roadbed, and could lead to sedimentation and siltation in nearby streams and ponds. Regular maintenance of these access roads (by any party) is not apparent. If it can be determined that private property owners do not possess a legal right to travel these access roads by motor vehicle, the roads should be closed to such use and water diversion devices installed until the roads can be re-vegetated.

It should be noted that the opportunities for ATV use on Forest Preserve are very limited. All claims by inholders regarding rights of access across Forest Preserve in VMWF should be substantiated by documentation produced by private inholders and will be researched by DEC.

2. Wildlife

The opportunity to encounter animals in the wild adds a dimension of excitement to a wilderness experience. Visitors to VMWF enjoy wildlife from a number of perspectives, including wildlife observation and photography and hunting and trapping. A diversity of wildlife species may be observed near old meadows, beaver flows and other wetlands, lakes, and streams. Public use tends to be concentrated in and around population centers, roads, and more accessible areas.

The pursuit of wildlife-related activities provides substantial economic income to the state and local communities throughout New York. Birdwatchers spend money on equipment, gas, and food. The expenditures of sportsmen who hunt or trap are important to NY's economy. Expenditures for licenses, equipment, firearms, ammunition, gasoline, lodging, meals, and a variety of other purposes infuse money into the local economy. The value of the meat or hides obtained further adds to the value. Besides the value for hunting and trapping, wildlife attracts people for a variety of other uses, such as hiking, bird watching, and photography. People pursuing these activities also contribute to the state and local economy.

A number of mammals and birds which occupy VMWF may be hunted or trapped during regulated seasons set annually by DEC. The two big game species which may be hunted in the unit are the white-tailed deer and black bear. Both may be taken during archery, muzzleloading, and regular seasons. In addition, there is an early season for black bear that begins in mid-September. Small game species that may be hunted in the unit include: waterfowl, woodcock, crow, ruffed grouse, coyote, bobcat, raccoon, red fox, gray fox, weasel, skunk, varying hare, and gray squirrel. Terrestrial furbearer species that may be trapped include coyote, bobcat, fisher, marten, raccoon, red fox, gray fox, weasel and skunk. Aquatic species that may be trapped include beaver, otter, muskrat and mink.

Harvest information for big game, small game and furbearers is collected annually by the Department on a county, town and Wildlife Management Unit (WMU) basis via a number of different systems. The law requires that big game hunters report deer and bear harvests. Trappers are required to have beaver, fisher, otter, marten, coyote and bobcat pelts sealed by a Department representative within 10 days following the close of those seasons or before sale of the pelts, whichever occurs first. Harvest estimates for other species are collected either by a telephone survey or mail survey.

No survey to determine the number of hunters or trappers utilizing the VMWF has been conducted. Past studies by DEC indicate that few sportsmen stop at trailhead registers. However, it can be assumed that VMWF, in general, is attractive to those hunters and trappers desiring solitude because of its generally rough terrain, and high ratio of acres of land to miles of road, in spite of relatively low densities of wildlife populations. Some areas of the unit do sustain significant hunting activity. Hunting pressure for big game originates principally from access points along Route 28N and the Blue Ridge Road. Hunters who work

interior reaches of the unit either camp in the interior or gain access from adjacent private lands where they have leased hunting rights.

The popularity of the special hunting season for muzzleloading firearms, first opened in the 1977-1978 season, has been on the increase throughout the Adirondacks. A legislative change in 1991 allowed successful muzzleloader hunters to purchase a second tag valid for an antlered buck during the regular season only. This legislation has significantly increased interest in muzzleloader hunting, although use of portions of VMWF remains relatively light. The Bureau of Wildlife monitors the populations of game species partly by compiling and analyzing harvest statistics, thereby quantifying the effects of consumptive wildlife use. In addition to deer and bear harvest statistics, information on the harvest of small game and furbearers is compiled by town, county, and Wildlife Management Unit (WMU). VMWF is mostly in WMU's 5H, 5F, with a very small part in 5G. Given that the towns of North Elba, Keene, Chester, Indian Lake, and Johnsburg contain little, if any VMWF lands, harvest statistics for deer and bear for these towns have not been included in this plan. Vanderwhacker Mountain Wild Forest, most of which can be considered deer range, comprises slightly less than half of the total area of deer range contained in the remaining four towns (Newcomb, Minerva, Schroon and North Hudson) in which the bulk of the unit is situated. Since these four towns contain a total of 705 square miles of deer range, the densities of deer harvest for each of the last five years can be calculated and range from 0.43 to 0.52 deer per square mile. Although it is not known how the deer harvest is distributed within the towns, it can be assumed that, because of the unit's heavily forested condition and relative inaccessibility to hunters, fewer deer per square mile are harvested on state lands within VMWF than in surrounding areas. The narrow range of variation in annual harvest densities, and the fact that the taking of bucks has little impact on the reproduction capacity of a deer population, lead to the conclusion that the populations of the four towns and consequently, of VMWF, are capable of withstanding current and anticipated levels of consumptive use. Deer harvest figures for the towns of Newcomb, Minerva, Schroon and North Hudson and Wildlife Management Units 5F, 5G and 5H are presented in Appendix E, Tables 2 and 3.

An analysis of black bear harvest figures for the four VMWF towns coupled with a study of the age composition of harvested bears, has indicated that hunting within the towns has had little impact on the reproductive capacity of the bear population. Under existing regulations, the unit's bear population is capable of withstanding current and anticipated levels of consumptive use. Harvest figures by town are listed in Appendix E, Table 4.

The Bureau of Wildlife monitors furbearer harvests by requiring trappers to tag the pelts of beaver, bobcat, coyote, fisher, marten, and otter. Beaver, fisher, marten, and otter can be susceptible to overharvest to a degree directly related to market demand and ease of access. Harvest regulations are changed when necessary to protect furbearer populations. Harvest figures by town are listed in Appendix E, Table 5.

The remaining hunted and trapped species are relatively common, widely distributed and fairly abundant throughout the Adirondack region. Hunting and/or trapping pressure on these species in VMWF is assumed to be relatively light.

Despite the lack of wildlife information specific to VMWF, no need has been identified to obtain such information for widely distributed species. It is more practical to study and manage populations over broader areas defined by ecological characteristics that extend beyond Forest Preserve Unit boundaries. Lacking, however, is site-specific information on insects, molluscs, and to a lesser degree, reptiles and amphibians. Future inventories of these species would be beneficial, particularly with respect to endangered, threatened, and species of special concern.

3. Fisheries

Quantitative information about the numbers of anglers who visit the waters of the Vanderwhacker Mountain Wild Forest Area is unavailable. However, fishing is a popular activity in selected waters.

Fishing pressure is generally higher on the more readily accessible lakes and streams, but angler use of the unit's streams is believed to be less than on lakes and ponds. Much of the fishing activity is concentrated on coldwater lakes, and on Adirondack brook trout ponds (See definitions on page 125). Trout fishing on lakes and ponds typically peaks in April, May, and June when trout can still be found in the cool water near the surface. Surface fishing activity declines in the summer due to formation of a thermocline which causes fish to move to deeper water. Warmwater (See definitions) angling on the unit's warmwater lakes peaks in July-August. Descriptions of the ponded waters of the unit can be found in Appendix B.

4. Water Resources

Aside from fishing, the water resources of VMWF are mainly used by the public for wildlife viewing, non-motorized boating, and of course for their general scenic character. However, accurate information regarding public use of the water resource does not exist. At one time, there were two DEC registers relating to water bodies on VMWF, yet their value in collecting reliable use information was questionable and they have since been removed. The first was in the hamlet of Newcomb on the west bank of the Hudson River, just south of the Route 28N bridge within the DOT highway right-of-way. This register was installed in the early 1980's as part of a coordinated search and rescue plan for boaters on the river. This access point in Newcomb was quite popular before the advent of commercial rafting trips, which now use the Indian River to access the Hudson Gorge. It was not uncommon for users to underestimate the amount of time needed for the trip from Newcomb to Warren County, and hence, DEC Forest Rangers were often called in to locate missing boaters. Thus the register was installed to track boaters in case the need arose. However, the need for search and rescue efforts has decreased significantly since most users now enter the Hudson Gorge via the Indian River. Consequently, the register went largely unused in recent years, became obsolete, and was removed.

The second register of water use was located on the left bank of the Boreas River[1], near the Route 28N crossing. This register served both the users of the river and the nearby Boreas River Loop foot trail. Registered use of the river was extremely low. Besides the flat water of Lester Flow, the Boreas River is not commonly used by boaters because of its rapid descent below this point and frequent shallows. In fact, below Lester Flow, the river is only runnable by expert boaters at medium-high water and contains many class IV and V rapids. In "Adirondack Canoe Waters; South and West Flow", Alec Proskine describes a section further down the river:

> "...the world suddenly tips, and your boat starts flying by trees, boulders and water so fast, you think you are in a new world of water. It becomes sheer ecstasy or terror, depending on your ability and the water conditions. [In this section] the river drops with a gradient of 111 feet per mile, making it the steepest canoeable river in the Adirondacks for this distance."

Needless to say, it can be quite dangerous.

Most waterbodies, substantially or fully contained within VMWF, are small and accessible by non-motorized means only. These ponds receive limited use by anglers willing to carry small boats or canoes

[1]In 2004, this register was relocated. In its new location, it should improve retention of use figures for the Boreas River Loop trail, but will not function as a record of river use.

moderate to long distances to aid in fishing. These ponds include Stony Pond, Rankin Pond, Wolf Pond, Hewitt Pond and to some extent Newcomb Lake, which is accessed by most through Camp Santanoni Historic Area. Of course, there are several ponds and lakes with less demanding ingress that receive heavier use including Oliver Pond, Cheney Pond, and Harris Lake. The latter is probably most heavily used, due to the public campground on the northeast shore and the generally private ownership of the south shore. In fact, VMWF occupies less than half the available frontage of Lake Harris, and offers no launching facility as the need is already fulfilled elsewhere on the lake. Cheney Pond probably experiences highest use in mid- to late-summer and early fall due to the access road and the existence of primitive campsites on the east and west shores of the pond, but public use figures are not available. Oliver Pond, in the Town of Schroon, has a hand-carry launching facility, but again, public use data is unavailable.

The State recently acquired a parcel of land providing access to the east side of Balfour Lake from Route 28N. The construction of a public hand carry launching facility on this site will be discussed in the Management Recommendations section of this document.

E. Recreational Opportunities for Persons with Disabilities

The Federal Americans with Disabilities Act of 1990 ("ADA") along with the Architectural Barriers Act of 1968 (ABA) and the Rehabilitation Act of 1973, have important implications for the management of all public lands, including the Vanderwhacker Mountain Wild Forest. A detailed explanation of the ADA and it's influence on management actions is provided on page 71.

In 1997, DEC adopted policy CP-3, Motor Vehicle Access to State Lands under Jurisdiction of the Department of Environmental Conservation for People with Disabilities, that establishes guidelines for issuing Temporary Revocable Permits allowing qualified people with disabilities to use motor vehicles to gain access to designated routes on certain state lands. No specific locations for such use were identified in the Vanderwhacker Mountain Wild Forest. However, in this UMP, opening of a portion of the Roosevelt truck trail for such use is proposed. See Section IV and Appendix J for more detail.

To date, no universally accessible structures or improvements have been designed or constructed within the Vanderwhacker Mountain Wild Forest. Compliance with the ADA and Americans with Disabilities Act Accessibility Guidelines (ADAAG) must begin with an appropriate assessment. An assessment entails the use of a formal process that examines the facility (such as a trail, lean-to, picnic area) in terms of the standards established by ADAAG (either adopted or proposed) and/or the New York State Uniform Fire Prevention and Building Codes, as appropriate. A schedule for completing such an assessment is presented in Section VI of this plan.

In the absence of a formal assessment, staff observations have identified a few appropriate opportunities to develop universally accessible improvements without fundamentally altering the nature of programs offered to the public. These opportunities are presented as Management Actions later in this plan.

Balfour Lake - A recently purchased parcel on Route 28N will provide the public with a roadside access point to this small lake in the Town of Minerva. A new parking facility and car top boat launch will be constructed on the parcel and should be designed to be ADAAG compliant. In addition, access sites on Cheney Pond and Oliver Pond may also be appropriate sites to improve for access for the mobility impaired.

Boreas River Campsites - There are several campsites along the Northwoods Club Road where it crosses the Boreas River that should be upgraded to ADAAG standards. Hardening an existing camp pad, and making a privy and picnic table accessible are proposed later in the plan.

Muller Pond Campsites - There are existing informal campsites near the pond's outlet that may be suitable to be upgraded to ADAAG standards. Hardening an existing camp pad, and making a privy and picnic table accessible are proposed later in the plan.

Roosevelt truck trail - Open 2 miles of this administrative road to CP-3 permit holders rather than the Arrow road in the Wilcox Lake Wild Forest. The Arrow road was originally contained in the recent ADA Consent Decree, but the old road possesses a low capacity to withstand motor vehicle use. The Roosevelt truck trail is much more suitable. In addition, construct two primitive tent sites to ADAAG along the Roosevelt truck trail in order to provide camping and hunting opportunities to people with disabilities.

F. Relationship between Public and Private Land

1. Land Ownership Patterns

As mentioned previously, the unit borders other Forest Preserve units in a few places and a fair amount of private land, as well. To the north and west of the unit, much of the private land is owned by Finch, Pruyn & Company, Inc., managed for the production of forest products, and may also be leased to rod and gun clubs. The Open Space Institute (OSI) recently purchased approximately 10,000 acres around Henderson Lake, known as the Tahawus property, from National Lead Industries. A majority of this acreage is slated to be sold to the state and added to the Forest Preserve. Approximately 3,000 acres will remain as working forest and several hundred acres comprising the historic Village of Adirondac will be managed as an historic district, with conservation easements to these portions of the property to be acquired by the State. National Lead will retain the old mine site. West of VMWF and Camp Santanoni, the SUNY College of Environmental Science and Forestry owns the 15,000-acre Huntington Forest, where it conducts research projects focusing on the study of Adirondack natural resources and systems. Private lands on the southern and eastern boundaries of the unit are mainly individually owned and also used in the production of forest products and/or as primary and secondary residences. The several private inholdings completely surrounded by VMWF are also owned by forest product companies, private hunting clubs, or private citizens and are generally used in the production of forest products, as summer camps, or as secondary residences. Most of these private lands are posted against public use.

Uses on the properties bordering VMWF are generally of a nature that does not seriously impact large areas of VMWF. However, timber trespasses are not unknown and are investigated promptly by DEC Forest Rangers and/or Environmental Conservation Officers. The threat of such activities and others stemming from neighboring private land, such as illegal motorized use of trails and old access roads, causes slight economic impact through increases in signing and law enforcement costs on an irregularly shaped unit such as VMWF.

Most VMWF facilities are sufficiently distant from private land and do not seriously impact neighboring owners. The exceptions include a handful of neighbors whose properties are close to trailheads or other facilities and may experience such annoyances as increased foot or vehicular traffic and occasionally, vandalism. Over the years the Hewitt Pond Club has experienced problems of trespass stemming from the nearby DEC foot trail. The Club owns the western shore of the pond, including lands underwater. At one time, they went so far as to place buoys across the pond warning the public against trespass. However, use of the trail and the pond is usually restricted to locals, who are now well aware of the boundary. Additionally, the caretaker sees to it that new visitors are aware of the line.

The Moose Pond Club, a private inholding in the Town of Minerva, has also experienced problems due to nearby VMWF facilities. The Club is accessed via Moose Pond Road, which is maintained largely at the expense of its members. The road is also used to access the Vanderwhacker Mountain fire tower foot

trail, and consequently sees much use by the public. The argument is made by the Club members that increased public use shortens the necessary schedule of road maintenance, leading to increased costs for the Club. Keeping the road open to motor vehicles is in the interest of the People of the State of New York, as the summit of Vanderwhacker Mountain offers some of the best views anywhere in the Adirondacks. The round-trip distance from the trailhead to the summit and back is 5 miles; a suitable distance for a family-oriented foot trail. If motorized use of the road by the public were prohibited, the round-trip distance from 28N to the summit and back would be over 11 miles, which would preclude use by the majority of people who currently enjoy use of the trail. Therefore, it is in the best interest of the People of the State of New York to work out a suitable method to share the cost of maintenance with the Moose Pond Club. This proposal will be discussed further in Section IV of this plan.

Changes in wildlife habitats occur constantly due to natural processes such as succession, blowdown, beaver activity, and disease or human activities such as logging and residential development. Within the VMWF, development and logging are not allowed. The lack of logging will allow the forest to mature, but will also limit the amount of early successional habitats, and will limit management options for wildlife. Logging on private lands adjacent to the VMWF will provide some early successional habitat. Private lands adjacent to the VMWF are managed quite differently than VMWF lands. Fields can be kept open, and logging is allowed. This adds considerable diversity to the types of habitats present. This diversity in habitat leads to more diversity in wildlife also. The fields, and openings created by logging, provide habitat for early successional species. Many of these species will be more common on the private lands than on VMWF. Considering the amount of forest preserve land within the Adirondacks, it is unlikely that forest fragmentation on these private lands will be a negative issue. It is probable that many of the species of wildlife within VMWF will actually benefit from the habitats found on adjacent private lands.

2. Land Use Regulations

Much of the private land both surrounding and surrounded by the unit is zoned “Resource Management” or “Rural Use” by the APA. Around the Hamlets of Minerva, Olmstedville, Newcomb, North Creek, and Pottersville, the unit shares short borders with private land zoned “Low Intensity Use”, “Moderate Intensity Use”, and “Hamlet.” These zones and the uses allowed within them are defined in the Adirondack Land Use and Development Plan. As is implied by the fact that the unit abuts private lands in six different zones, there is a wide variety of activity that could take place on lands adjacent to the unit.

3. Impact of NYS Ownership on Adjacent Lands

The economic impact of state ownership on adjacent private land is minor, although desirable, attributable to an increase in the value of the private lands due to a confidence in future stability of area use.

Although the state does pay full taxes on the assessed value of Forest Preserve Lands pursuant to Real Property Tax Law §532(a), there may nonetheless be some impact on the area’s other taxpayers. Some argue that if Forest Preserve land were privately held and “improved”, property taxes on this land would increase, adding to the tax base. State ownership precludes improvements which generate significant property tax increases. However, this state land generates tax revenues without creating the public service demands usually required by improved properties.

As stated above, Forest Preserve lands are subject to taxation in accordance with section 532(a) of the Real Property Tax Law. State government pays taxes on unimproved forest lands equivalent to those paid by private landowners. State lands are assessed by local government assessors. The tax rate established by each local government jurisdiction is applied to the assessment and determines the taxes on the parcel. The tax must be comparable to rates on similar private lands.

For the year 2000 in Essex and Warren Counties, the total property tax amount paid to the county, towns and school districts by the State was $9,569,092. The average tax liability in 2000 for lands within the Vanderwhacker Mountain Wild Forest averaged about $11.60 per acre, for a total of approximately $1,060,000. Annual payments made by the State for VMWF lands to each Town are approximated in the table below.

	VMWF acreage within Town	**approx. annual payment received from State for VMWF lands**
Minerva	51,010	$650,000
Newcomb	18,651	$183,000
North Hudson	8,383	$54,000
Schroon	7,498	$85,000
Chester	1,181	$28,000
Johnsburg	4,915	$58,000
Indian Lake	216	$2,500

Quantitative public use estimates and their economic impact for the Vanderwhacker Mountain Wild Forest are not available. Visitor-related expenditures contribute to the economy of the area. Tourism and outdoor recreation are a major portion of the area's economy.

4. Relationship to Adjacent State Lands

Vanderwhacker Mountain Wild Forest is not the only unit of state land in the area. As mentioned before, there are several Wilderness units, and other state lands in close proximity to the VMWF. Inherent in the classification of "Wilderness"are the many restrictions on allowable public uses and activities. Wild Forest areas are less fragile, ecologically, and consequently the resources in these areas can generally withstand more human impact. In addition, Wild Forest areas are generally more accessible to the public, with more roads reaching in to areas that might otherwise be difficult to access.

Although the Adirondack Mountain Reserve Easement (AMR), Samuel Bloomingdale Easement, and Upper Works Easement are located within the VMWF Planning Area, as shown on the VMWF UMP Map, they will not be addressed in this UMP. These easements do not border VMWF state lands, but rather have trail connections with and border the HPWA and DMWA. Thus, the easements have a far greater impact on the management of these two Wilderness Areas, and management actions relative to the easements are addressed in the HPWA and DMWA UMP's.

Wilderness Areas

The High Peaks, Hoffman Notch, and Siamese Ponds Wilderness Areas border Vanderwhacker Mountain Wild Forest. Area statistics are presented below.

High Peaks Wilderness Complex

State Lands	193,385	acres
Bodies of Water (117)	1,700	acres
Elevation (maximum)	5,344	feet
Foot Trails	303+	miles
Lean-tos	73	

The High Peaks Wilderness Area is the best known Wilderness in the Adirondacks and consequently receives the most visitation. The area contains many of New York's highest peaks including Mount Marcy at 5,344 feet. The HPWA is adjacent to the North River Mountains parcel of VMWF for approximately one mile, but there are no designated trail connections at this boundary. In addition, the HPWA is adjacent to VMWF for a short distance near the hamlet of Newcomb, and is in close proximity to VMWF in the vicinity of the Camp Santanoni Historic Area.

Hoffman Notch Wilderness

State Lands	36,231	acres
Bodies of Water (8)	156	acres
Elevation (maximum)	3,693	feet
Foot Trails	30	miles
Lean-tos	0	

Hoffman Notch Wilderness lies in the towns of Schroon, North Hudson, and Minerva in Essex County. Access to this Wilderness is easily gained, and its present use comes mainly from hikers, hunters and anglers. Of the three nearby Wilderness areas, it is the only one that shares a common boundary with VMWF for any great length. The Sand Pond Mountain parcel of VMWF contains the north end of the Hoffman Notch trail and borders the Wilderness area for approximately 4 miles. In addition, the Wilderness borders the VMWF almost uninterrupted in the vicinity of Minerva Stream and Cheney Pond for approximately 9 miles. However, with all this shared border, the only designated trail connection between the two units is the aforementioned Hoffman Notch trail.

Siamese Ponds Wilderness

State Lands	114,010	acres
Bodies of Water (80)	1,483	acres
Elevation (maximum)	3,472	feet
Foot Trails	80	miles
Lean-tos	4	

Siamese Ponds Wilderness is located in the towns of Lake Pleasant, Wells, and Indian Lake in Hamilton County and in the towns of Johnsburg and Thurman in Warren County. The Wilderness borders VMWF in the vicinity of Gore Mountain Intensive Use Are. There are opportunities, using existing and abandoned nordic ski trails, to create connections between Siamese Ponds Wilderness Area and VMWF, which will be addressed later in this plan.

Primitive Areas

Hudson Gorge

State Lands	17,170	acres
Bodies of Water (12)	283	acres
Elevation (maximum)	2,558	feet
Foot Trails	2.5	miles
Lean-tos	0	

The Hudson Gorge Primitive Area lies within the Town of Minerva in Essex County and the Town of Indian Lake in Hamilton County. It is separated from the VMWF on its northern boundary by the Northwoods Club Road and on its eastern boundary by the Hudson River. From many points within the VMWF, both on- and off-trail, it is possible to gain views of the gorge and surrounding mountains.

Intensive Use Areas

Lake Harris Campground

The campground is located on the north side of Lake Harris in the Town of Newcomb and is surrounded by VMWF lands. Currently, the only connection between the campground and VMWF is an existing foot trail that leads from the west end of the campground and across VMWF to the gatehouse complex at the Camp Santanoni Historic Area.

Eagle Point Campground and Scaroon Manor

Both campgrounds are located on the shore of Schroon Lake and separated from two parcels of VMWF by State Route 9 in the town of Chester in Warren County. Although the bordering pieces of VMWF are quite small, they may provide for additional family-based recreation opportunities, including hiking and bicycling. There are no existing designated trail connections to these VMWF parcels, but proposals relative to this can be found in Section IV of this document.

Other State-Owned and/or Operated Lands

Camp Santanoni Historic Area and Visitors Interpretive Center

The CSHA and the VIC (land leased from SUNY ESF) border the same parcel of the VMWF north of Lake Harris in the town of Newcomb. This plan identifies management alternatives on the VMWF to increase the public's use and enjoyment of all three areas.

Gore Mountain Ski Area and Little Gore (Little Gore is operated by the Town of Johnsburg) GMSA is bordered by VMWF to the north and is connected to Little Gore via hiking and nordic ski trails. Sections of old trails and roads in the Raymond Brook drainage in VMWF can be re-opened to skiers and hikers and expanded to connect to existing nordic trails on Little Gore and even lead to the hamlet of North Creek.

G. Capacity to Withstand Use

The Vanderwhacker Mountain Wild Forest, like any other natural area in our Forest Preserve, cannot withstand ever-increasing, unlimited visitor use without suffering the eventual loss of its essential, natural character. This much is intuitive. What is not intuitive, though, is how much use and of what type the whole area - or any particular site or area within it - can withstand before the impacts of such use cause serious degradation of the very resource being sought after and used. Such is a wildland manager's most important and challenging responsibility, however: to work to ensure a natural area's "carrying capacity" is not exceeded while concurrently providing for visitor use and benefit.

The term “carrying capacity” has its roots in range and wildlife sciences. As defined in the range sciences, carrying capacity means “the maximum number of animals that can be grazed on a land unit for a specific period of time without inducing damage to the vegetation of related resources” (Arthur Carhart National Wilderness Training Center, 1994). This concept, in decades past, was modified to address recreational uses as well; although in its application to recreational use it has been shown to be significantly flawed when the outcome sought has been the “maximum number” of people who should visit and recreate in an area such as the Vanderwhacker Mountain Wild Forest. Much research has shown that the derivation of such a number is not useful.

Essentially, this is because the relationship between the amount of use and the resultant amount of impact is not linear (Krumpe and Stokes, 1993). For many types of activities, for instance, most of the impact occurs with only low levels of use. In the case of trail erosion, once soil starts to wash away, additional foot travel does not cause the impact upon the trail to increase proportionately. It has been discovered that visitor behavior, site resistance/resiliency, type of use, etc. may actually be more important in determining the amount of impact than the amount of use, although the total amount of use is still a factor (Hammit and Cole, 1987).

This makes the manager’s job much more involved than simply counting, redirecting, and (perhaps) restricting the number of visitors in an area. Influencing visitor behavior can require a well-planned, multi-faceted educational program. Determining site resistance/resiliency always requires research (often including much time, legwork and experimentation). Shaping the types of use impacting an area can call not only for education and research and development of facilities, but also the formulation and enforcement of a set of regulations which some users are likely to regard as objectionable.

Nevertheless, the shortcomings of a simple carrying capacity approach have become so apparent that the basic question has changed from the old one, “How many is too many?” to the new, more realistic one: “How much change is acceptable?” The DEC embraces this change in approach while recognizing the tasks it calls for in developing the best foundation for management actions. Professionally-informed judgements must be made such that carrying capacity is given definition in terms of resource and social conditions that are deemed acceptable; these conditions must be compared with the real, on-the-ground conditions; certain projections must be made; and management policies and actions must be drafted and enacted with an aim toward maintaining or restoring the conditions desired.

This shift in managers’ central focus - away from trying to determine how many visitors an area can accommodate to trying to determine what changes are occurring in the area and whether or not they are acceptable - is as critical in a Wild Forest area like the Vanderwhacker Mountain Wild Forest as it is in a Wilderness. All such areas are State Forest Preserve units which must be protected, per the state Constitution, as “forever wild.” Furthermore, the APSLMP dictates in the very definition of Wild Forest areas that their “essentially wild character” be retained.

The magnitude of the challenge here is made evident by other statements and acknowledgments found in the APSLMP concerning Wild Forest areas. The 1972 APSLMP claim that “[m]any of these areas are under-utilized” remains seemingly true, and from this determination and the determination that these areas “are generally less fragile, ecologically” comes a directive that “these areas should accommodate much of the future use of the Adirondack forest preserve.”

Clearly, a delicate balancing act is called for, and yet just as clearly, the Department’s management focus must remain on protecting the resource. “Future use” is not quantified in the above directive, but it is generally quantified and characterized in the definition of Wild Forest as only “a somewhat higher degree of human use” when compared to Wilderness. And whereas certain “types of outdoor recreation...

should be encouraged," they must fall "[w]ithin constitutional constraints... without destroying the wild forest character or natural resource quality" of the area.

A central objective of this plan is to lay out a strategy for achieving such a balance in the Vanderwhacker Mountain Wild Forest. This strategy reflects important guidelines and principles, and it - along with the guidelines and principles - have directed the development of the management proposals which are detailed in Section IV.

Strategy

The long-term strategy for managing the Vanderwhacker Mountain Wild Forest uses a combination of three generally accepted planning methods: (1) the goal-achievement process; (2) the Limits of Acceptable Change (LAC) model employed by the U.S. Forest Service; and (3) the Visitor Experience and Resource Protection (VERP) model employed by the National Park Service. Given the distinctly different, yet important purposes of these methods (particularly between the first method and the second two), there are clear benefits offered by employing a blend of these approaches here.

Goal-Achievement Process

The goal-achievement process provides a framework for proposed management by means of the careful, stepwise development of key objectives and actions that serve to prescribe the Wild Forest conditions (goals) outlined by APSLMP guidelines. DEC is mandated by law to devise and employ practices that will attain these goals. For each management activity category included in Section IV of this plan, there has been worked up a written assessment of the current management situation and a set of assumptions about future trends, in which the specific management proposals which follow are rooted.

Limits of Acceptable Change (LAC) and Visitor Experience and Resources Protection (VERP) Models

These methods both employ carrying capacity concepts, not as prescriptions of the total number of people who can visit an area, but as prescriptions of the desired resource and social conditions that should be maintained to minimum standards regardless of use.

Establishing and maintaining acceptable conditions depends on well-crafted management objectives which are explicit and which draw on managerial experience, research, inventory data, assessments and projections, public input, and common sense. When devised in this manner, objectives founded in the LAC and VERP models essentially dictate how much change will be allowed (or encouraged) to occur and where, as well as how management will respond to changes. Indicators (measurable variables that reflect conditions) are chosen, and standards (representing the bounds of acceptable conditions) are set, all so that management efforts can be effective in addressing unacceptable changes. A particular standard may be chosen so as to act as a simple trigger for management action (as in VERP), or it may be chosen to act as a kind of boundary which - given certain assessments - allows for management action before conditions deteriorate to the point of no longer meeting the standard (as in LAC).

Even well-conceived and executed efforts can prove ineffective, but when this is the case, management responses must be adjusted. Monitoring of resource and social conditions is absolutely critical. Both the LAC and VERP models rely on monitoring to provide systematic and periodic feedback to managers concerning specific conditions. However, since the VERP model was developed to apply only to impacts from visitor use, some management issues (for instance, the impacts of acid deposition) call for an approach that is properly in the LAC vein.

Since differences between LAC and VERP are not significant, choices are left up to managers. These choices are as evident as they need to be wherever this plan, in Section IV, calls for sets of management actions which incorporate them.

In outline, DEC's approach applies four factors in identifying potential management actions for an area:

- The identification of acceptable resource and social conditions as defined by measurable indicators;
- An analysis of the relationship between existing conditions and those desired;
- Determinations of the necessary management actions needed to achieve desired conditions; and,
- A monitoring program to see if objectives are being met.

A list of indicators which may be used by the DEC for measuring and evaluating acceptable change are:

- Condition of vegetation in camping areas and riparian areas near lakes and streams;
- Extent of soil erosion on trails and at campsites;
- Noncompliant behavior;
- Conflicts between different user groups;
- Air and water quality.

These indicators form the basis for the proposed management actions presented in Section IV. Each applicable resource area or facility type identified in Section IV will be assessed for it's present condition, it's desired future condition and how it will be measured. This approach will require flexibility, determination and patience. It may not be possible to complete all inventories and assessments called for by this strategy - and by the APSLMP - in this plan's five-year time frame. It will be important to show progress in achieving APSLMP goals and in gaining initial managerial experience and knowledge in applying this strategy to some carrying capacity questions and issues. Knowledge gained as a result of the implementation of this first Vanderwhacker Mountain Wild Forest unit management plan will be useful to: 1) revising and refining management actions if evaluation shows that desired conditions are not being attained or sustained; and 2) creating a foundation upon which this strategy can eventually be built into a fully-developed, science-based approach to protecting and managing the unique resources of the Vanderwhacker Mountain Wild Forest.

A. Land Resources

The land resource may be impacted from overuse or inappropriate use and can result in soil degradation, litter, disturbance to fragile vegetation and aesthetic impacts. The marking and clearing of unofficial trails, overuse from camping, and illegal motor vehicle use all negatively impact land resources.

In general, the level of human use of the VMWF does not appear to impact the natural resources of the unit beyond its capacity to withstand recreational use. The VMWF exhibits few of the overuse parameters experienced in the nearby and highly overused areas of the HPWA. This is likely due, in large part, to the decidedly lesser number of primary attraction points (summits, lakes, ponds, interior structures) in the unit and to low public knowledge of and familiarity with the VMWF. Much of the visitor use appears to be either day trips or short-term overnights. Moderate levels of soil erosion and compaction are evident mainly on the most popular trails; the Vanderwhacker Mountain trail and the Stony Pond trail. Primitive tent sites along Northwoods Club Road at the Boreas River locally show signs of soil compaction and erosion, which is severe in some instances.

Physical inspections of the trails and campsites in the VMWF coupled with user feedback provide the following observations with respect to the capacity of the natural resources of the unit to withstand recreational use:

- Primitive tent sites along Northwoods Club Road at the Boreas River are heavily-used during summer weekends. The resultant impacts include trampling of vegetation, as well as soil erosion and compaction.
- Inappropriate motor vehicle use at Muller Pond has resulted in impacts to vegetation and soil. A non-designated campsite located too close to the pond has become a party spot, resulting in vandalism and littering.
- Poor original layout of the Vanderwhacker Mountain tower trail results in a low capacity of that trail to withstand use, evidenced by areas of erosion and gullying along the trail. The trail re-route proposed later in this plan should alleviate this problem and ensure that its capacity to withstand use is not exceeded.
- The majority of primitive tent sites in the unit appear to be long established. Most appear to be fairly well self contained.

B. Fish and Wildlife Resources

Wildlife use in the Vanderwhacker Mountain Wild Forest ranges from hunting and trapping to organized bird watching to casual observation. Consumptive uses (i.e., the taking of game species) are strictly regulated by the Department. Regulations are designed to perpetuate the wildlife resource and make it available for future generations. Hunting and trapping can influence the populations of some species such as white-tailed deer, black bear, beaver, fisher, and otter. Annual review of harvest levels insures that overharvest of these species does not occur. Harvest of many species is reviewed annually through hunter checks, pelt sealing, or mail survey. As a result of management and large areas that serve as "reservoirs", all game species in the Adirondacks have substantial populations with the ability to withstand annual harvest.

Nearly all species of wildlife are protected or their harvest carefully regulated. The degree and type of public use within the unit does not appear to have a significant impact on the wildlife resource.

DEC angling regulations are designed to conserve fish populations in individual waters by preventing over-exploitation. Angling regulations effectively control impacts of angler use. DEC monitors the effectiveness of angling regulations, stocking policies, and impacts of other management activities by conducting periodic biological and chemical surveys. Based on analysis of biological survey results, angling regulations may be changed as necessary to protect the fish populations of the Vanderwhacker Mountain Wild Forest area. Statewide angling and special angling regulations provide the protection necessary to sustain or enhance natural reproduction where it occurs.

In addition to angling regulations, factors at work in the unit, which serve to limit use, include the relative remoteness of ponds and streams from roads (with some exceptions) and the seasonal nature of angling in coldwater ponds. Because angler use of streams in the unit is believed to be light, the brook trout populations which they support can sustain anticipated regulated harvest levels without damaging their capacity to maintain themselves naturally. The warmwater game fish species found in the unit also have proven their ability to maintain themselves under existing regulations without the need for stocking.

When necessary, populations of coldwater gamefishes are maintained or augmented by DEC's annual stocking program. Most warmwater species (smallmouth bass, largemouth bass, northern pike and panfishes) are maintained by natural reproduction; however, stocking is sometimes used to introduce those fishes to waters where they do not exist.

H. Scientific Research

The ALSC has conducted research on waters within and in relatively close proximity to VMWF (see Section II. 1. A. g. Air Resources and Atmospheric Deposition and Appendix B for more details). DEC is unable to carry out all the research from which VMWF would benefit, for numerous reasons. Therefore, DEC encourages private organizations to do so, where possible. Research projects are initiated by a written proposal submitted to the DEC Region 5 Regional Forester in Ray Brook. Following a review process, written authorization in the form of a Temporary Revocable Permit (TRP) is issued. The permit specifies the conditions upon which approval is contingent. Researchers are required to report to DEC in writing on the findings of each research program. In some cases scientific research permits may be jointly issued by the Department and the New York State Museum. Such a permit is required when any scientific collections are made on State land.

Over the past several years a number TRP's have been issued for activities within and around the unit. These activities have included research in a wide variety of areas, including acid deposition, entomology and forest health, wildlife management, recreation management, forest ecology. On-going projects include the installation and remeasurement of so-called FIA plots (Forest Inventory and Analysis) by US Forest Service staff.

SECTION III. MANAGEMENT AND POLICY OVERVIEW

A. Past Management

The administration of Forest Preserve land is the responsibility of the Division of Lands and Forests. The responsibility for the enforcement of DEC rules and regulations lies with the Office of Public Protection. The Division of Operations conducts interior construction, maintenance and rehabilitation projects. The Bureau of Recreation within the Division of Operations operates and manages the public campgrounds adjacent to the unit. The Division of Fish, Wildlife and Marine Resources manages the state's fish and wildlife resources.

Most management activities in VMWF in the past have focused on fire protection and public uses, such as hunting, fishing and recreation. The fire tower on Vanderwhacker Mountain was built of wood in 1911, replaced with a steel tower in 1918, and operated until the mid '80s. The observer's cabins, the newer of which was built in the '50s, are a mile and a half walk from the tower. There is another Ranger cabin (presumably built in the 1920's or 1930's) located on the unit which has been used at various times as outpost, storage facility, and site for public education.

In addition, the relatively small network of trails, given the overall size of VMWF, consists mostly of abandoned roads used for public and private travel in years gone by. Many of these trails lead to popular fishing, hunting and vista locations, and consequently have remained as designated trails.

In the '30s, the Civilian Conservation Corps (CCC) was responsible for establishing Norway spruce, Scots pine, and white pine plantations on the unit on burned over areas and abandoned farmland acquired by the state for back taxes. Examples of such plantations can be seen in the vicinity of the Roosevelt truck trail, Charley Hollow Road, and Muller Pond, as well as many other places on the unit.

Land Management

Besides the aforementioned trail up Vanderwhacker Mountain, there are only a few other non-snowmobile trails in VMWF. Maintenance of these trails generally has included annual blowdown removal and periodic drainage work. A few trails received maintenance in the form of blowdown removal performed by localities via Temporary Revocable Permits (TRP), such as the Town of Johnsburg's minor maintenance of the trails at Little Gore that pass through VMWF for short distances. Other trails, such as the Roosevelt Truck Trail, are kept open by skiers, hunters, and other recreationists. The known history of these trails and roads in the unit was discussed earlier in this document. Snowmobiling is another public activity which has taken place in VMWF over the years, as evidenced by the designation of a handful of snowmobile trails on the unit. Over the last thirty years, management activities have concentrated mainly on brushing and blowdown removal. The Department currently holds no ANRSA's or TRP's with local snowmobile clubs to maintain or groom any trails in VMWF. At times of deep snow, these ungroomed trails may become impassable to snowmobiles. A description of the past management of snowmobile trails in the VMWF is discussed below.

The Vanderwhacker Snowmobile Trail is an old jeep trail that runs from Chaisson Road in Newcomb across ½ mile of private land and onto VMWF. Initially, it snakes through an area of eskers and wetlands before it heads around the west side of Vanderwhacker Mountain and connects with Moose Pond Road in Minerva. Although the trail was not formally closed, little, if any, DEC trail maintenance had occurred there for over 20 years. As a result, the trail had become overgrown in many places. In 1998, the Town of Newcomb applied for and was issued a Temporary Revocable Permit (TRP) from DEC to conduct maintenance work on the trail. The Town of Newcomb hired a private contractor to undertake the work. DEC personnel were assigned to the area, but were not present the entire time work was being performed. During this work, disturbance/filling of wetlands and clearing of trees and vegetation was

effected and 14 separate wetland violations were subsequently identified. A settlement agreement was reached between the APA and DEC to remediate the 14 wetland sites and close the trail to public snowmobile use until a UMP makes a determination on future trail use. The remediation work included: removing fill from wetlands and replacing in adjacent borrow pits, removing culverts, re-establishing stream channels, and seeding and mulching. This work was undertaken in spring 2000 by Ameri-corps volunteers and DEC Operations staff and completed that summer.

The snowmobile trail connecting Cheney Pond to Irishtown has also received only minor maintenance from DEC over the years. The dam on the Boreas River at Lester Flow has not been used in the driving of logs since 1949 and consequently was breached shortly thereafter. Since that time, the trail has crossed the frozen flow just north of the dam and connected with the old road running between the Blue Ridge Road and Irishtown. The trail has seen more use at its southern end because of the private inholding there. Consequently, the owners of the inholding have likely performed minor maintenance on the state-owned portions of the trail, such as clearing blowdown.

A third snowmobile trail (Stony Pond Snowmobile Trail) on VMWF runs between Route 28N near Stony Pond and Irishtown. This trail is one of the more popular trails on the unit, because of the lean-to on the west shore of the pond, and consequently has seen more maintenance by the Department than the above mentioned trails. At its southern end, the trail leads to a private inholding and near an old mine, which accounts for its width and condition at this end. However, the middle portion of the trail is not well-used; the section alongside Big Sherman and Little Sherman Ponds. Snowmobilers often travel across the frozen ponds rather than use the trail. Consequently, the trail along the ponds is somewhat overgrown and can likely be quite difficult to traverse by snowmobile.

The Linsey Marsh trail, which is isolated, short, and dead-ends, has also been used as a snowmobile trail over the years, and appeared in DEC publications as such before 1972 and as recently as 1989. Precise snowmobile use data for this trail is not available, but observations by the local Forest Ranger indicate that the trail has seen very little use over the last ten years and no use in the last three years. DEC Policy ONR-2 (Snowmobile Trails - Forest Preserve) encourages the Department to close such trails. This proposal will be discussed more fully in Section IV Management Recommendations. In years gone by, the trail into Linsey Marsh was more popular with the public, perhaps as a hunting spot and because of a tent platform located along the trail not far from the marsh. The trail and platform were also used in the winter, for the scenic and wildlife viewing opportunities from the frozen marsh. However, the platform was a non-conforming structure under the APSLMP, and was removed in the 1970's. In recent years, use and maintenance of this trail has dwindled considerably (personal communication - FR G. Roberts).

There are several old wagon roads in the Town of Newcomb that briefly cross lands of the VMWF, and access private lands along the Hudson River, south of Route 28N. Some of these old roads, such as the Packbasket trail, appeared on old Conservation Department maps as snowmobile trails. However, these trails were closed many years ago and have been posted against snowmobile use for some time.

There is also a network of snowmobile trails in Schroon Lake that cross VMWF intermittently. Much of this land came into state ownership in the early and mid-twentieth century and consequently, many of these trails are along old roads, portions of which haven't seen regular automobile traffic for 30 years. In the 1960's, DEC's predecessor, the Conservation Department, worked with the Town and local snowmobile club in the development of the network. In fact, the trail leading south from Horseshoe Pond Road to Charley Hill Road was partially built by the Conservation Department. A more detailed description of this network can be found in Appendix G.

In the 1960's, the Conservation Department entertained the idea of establishing a state campground on Cheney Pond. In order to make the campground more attractive, the State determined it would need to

manipulate Lester Dam and control the water level in the pond. By this time, the dam had not been used for river-driving for some years and had consequently fallen into disrepair. A second benefit to repairing the dam would have been in controlling water levels downstream, consequently enhancing fish habitat in the Boreas River. For this reason, the State also considered much-needed repair to Brace Dam further upstream. However, in the settlement for Township 30, Finch, Pruyn & Company, Inc. had retained sole right to maintain these dams. In 1967, Finch, Pruyn & Company, Inc. agreed to share these rights with the State temporarily and repair the LaBier Dam and Boreas Ponds Dam located on private land further upstream along the Boreas, if the State repaired Lester Dam and Brace Dam within four years. The money for repair of the dams on state land was never allocated and eventually the flowage rights reverted back to Finch, Pruyn & Company, Inc.

Wildlife Management

A number of changes have occurred over the past several decades that have impacted a variety of wildlife species within VMWF. Habitat changes have resulted from pre-Forest Preserve logging, wild fires, acid precipitation, recreation uses, natural plant succession, protection of the forest and wildlife species through legislation, reintroduction of extirpated species of wildlife and immigration of extirpated species to the area. Most wildlife management activities have been directed at improving knowledge of the wildlife species and populations on a larger scale or landscape and not specifically within the confines of VMWF itself. Wildlife management is not governed by this plan or by Forest Preserve "units" as outlined in the APSLMP. For example, deer management is based on Wildlife Management Unit (WMU) objectives. The Vanderwhacker Mountain Wild Forest lies within WMU's 5H, 5F and 5G.

Wildlife management activities have generally included:

- survey of selected wildlife species and various wildlife populations using a variety of techniques including aerial and on-the-ground-field-work, wildlife atlasing and reports from the public to document the presence or absence of species and population trends;
- monitoring of the harvest of and collecting biological information on selected wildlife species that are hunted and trapped to monitor changes in populations and guard against overharvest of potentially vulnerable species (e.g., otter, fisher and marten). (Records of furbearer, deer and bear take are listed in Appendix E); and,
- re-establishment of self-sustaining wildlife populations of species that are extirpated, endangered, threatened or of special concern in habitats where their existence will be compatible with other elements of the ecosystem and human use of the area.

Fisheries Management

Fish management in the Vanderwhacker Mountain Wild Forest has emphasized brook trout, brown trout, largemouth bass, smallmouth bass and various panfishes. Eleven ponds have been managed solely for brook trout. Area waters generally are subject to statewide angling regulations, with the exception that the use of fish as bait is prohibited in selected waters.

Historical biological data is available for all ponded waters in the unit excluding 23 waters that are either small or are contiguous with waters where survey data is available. Appendix B (page 125) presents pond-specific survey and management data for ponds in the unit. Little active fishery management has been conducted on streams within the unit because of their remoteness and small size. However, certain accessible streams, the Boreas River in particular, have been stocked with brook, brown, and rainbow trout.

B. Special Management Areas

The Adirondack Park State Land Master Plan recognizes two Special Management Areas within Vanderwhacker Mountain Wild Forest. Per the APSLMP, management of these lands will not be less restrictive than that of the major land classification in which they lie.

Vanderwhacker Mountain Summit

Vanderwhacker Mountain is one of the highest mountains in the unit at 3,386 feet. Views from the fire tower at the summit are spectacular. For that reason, the summit of the mountain is listed as a Scenic Special Management Area in the APSLMP. In addition, the fire tower is listed as a National Historic Landmark. Actions proposed in this UMP relating to the summit include the formation of the Friends of Vanderwhacker group and any subsequent work they may undertake to restore and rehabilitate the tower and associated facilities. Such work will be overseen by the Department and administered through an Adopt-a-Natural-Resource Agreement. Management actions in the area will focus on protecting the ecological, scenic, and historical characteristics of the summit and providing a worthwhile educational experience to the public. See Section IV Management Recommendations for further discussion of management activities on and around the summit area.

Boreas Hardwoods

This area (see map, Appendix H) is located on the east side of the Boreas River and is listed in the APSLMP as a Natural Special Management Area. The area is roughly 500 acres in size and is illustrative of a large-diameter, mature Northern Hardwoods community. The Northwoods Club Road runs through the area, as does a 0.75 mile woods road (a.k.a. "Lot 118 woods road") leading to a private inholding to the north. Actions considered in this UMP relating to this area include the alternative route that calls for designating the woods road as part of a snowmobile trail to facilitate access between Newcomb and Minerva. (See Appendix I).

C. Management Guidelines

1. Guiding Documents

This unit management plan has been developed within the guidelines set forth by:

- Article XIV, Section 1 of the New York State Constitution;
- New York State Environmental Conservation Law Article 9 and Title 6 of the New York State Code of Rules and Regulations (NYCRR) Parts 190-199;
- Wild Forest guidelines set forth in the APSLMP;
- ECL Article 15, Title 27 and Regulations for Administration and Management of the Wild, Scenic, and Recreational Rivers System in New York State (6 NYCRR Part 666), in particular referring to 11.5 miles of the Boreas River classified as "scenic", 2 miles of the Hudson River classified as "recreational", and 3.5 miles of the Hudson classified "scenic";
- ECL Article 9-0107(2) (Silvicultural Research Lands);
- established Department policy.

Article XIV, Section 1 of the New York State Constitution provides in part that, "[t]he 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."

The APSLMP provides guidance for the use and management of lands which it classifies as "Wild Forest" by establishing basic guidelines. The APSLMP defines Wild Forest as:

...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.

APSLMP guidelines define acceptable limits for the management and/or use of structures and improvements, ranger stations, motor vehicles, motorized equipment and aircraft, all terrain bicycles, roads, jeep trails, truck trails, snowmobile trails, fire towers, tent platforms, fishing and waterway access sites, flora and fauna, and recreational use and overuse. APSLMP management guidelines for Wild Forest are listed in Appendix M.

It is important to understand that the State Land Master Plan has structured the responsibilities of the Department and the Agency in the management of State lands within the Adirondack Park. Specifically, the APSLMP states that:

"..... the legislature has established a two-tiered structure regarding state lands in the Adirondack Park. The Agency is responsible for long range planning and the establishment of basic policy for state lands in the Park, in consultation with the Department of Environmental Conservation. Via the master plan, the Agency has the authority to establish general guidelines and criteria for the management of state lands, subject, of course, to the approval of the Governor. On the other hand, the Department of Environmental Conservation and other state agencies with respect to the more modest acreage of land under their jurisdictions, have responsibility for the administration and management of these lands in compliance with the guidelines and criteria laid down by the master plan."

In order to put the implementation of the guidelines and criteria set forth in the APSLMP into actual practice, the DEC and APA have jointly signed a Memorandum of Understanding concerning the implementation of the State Land Master Plan for the Adirondack Park. The document defines the roles and responsibilities of the two agencies, outlines procedures for coordination and communication, defines a process for the revision of the APSLMP, as well as outlines procedures for State land classification, the review of UMPs, state land project management, and state land activity compliance. The MOU also outlines a process for the interpretation of the APSLMP.

DEC policy has been developed for the public use and administration of Forest Preserve lands. Select policies, guidance, and maintenance standards relevant to the management of this unit include:

- Administrative Use of Motor Vehicles and Aircraft in the Forest Preserve (CP-17)
- Motor Vehicle Access to State Lands Under the Jurisdiction of DEC for People with Disabilities (CP-3)
- Standards and Procedures for Boundary Line Maintenance (NR-91-2; NR-95-1)
- Tree Cutting on Forest Preserve Land (O&D #84-06)
- Cutting and Removal of Trees in the Forest Preserve (LF-91-2)
- Snowmobile Trails - Forest Preserve (ONR-2)
- Interim Guidelines for Snowmobile Trail Construction and Maintenance in the Adirondack Forest Preserve (11/15/00)
- Division Regulatory Policy (LF-90-2)
- Adopt-A-Natural Resource (ONR-1)
- Policies and Procedures Manual Title 8400 - Public Land Management.

The Department also maintains policy to provide guidelines for the design, location, siting, size, classification, construction, maintenance, reconstruction and/or rehabilitation of dams, fireplaces, fire rings, foot bridges, foot trails, primitive camping sites, road barriers, sanitary facilities and trailheads. Other

guidelines used in the administration of Forest Preserve lands are provided through Attorney General Opinions, Department policy memos, and Regional operating procedures.

The recommendations presented in this unit management plan are subject to the requirements of the State Environmental Quality and Review Act of 1975. All proposed management activities have been reviewed and significant environmental impacts and alternatives have been assessed.

2. Guidelines

In addition to formal guidelines, the Department will adhere to certain standards for the development of management objectives and subsequent actions. The following guideline standards will apply to the construction, maintenance, rehabilitation and existence of all facilities within the Vanderwhacker Mountain Wild Forest:

Trails
Trails to be designated and constructed will increase the access, enjoyment, and understanding of these lands. In locating trails, preference will be given to places where the land through which the trail passes or the destination of the trail has high scenic, ecological, or historical interest. All trail construction and relocation projects will be developed in accordance with the Adirondack Park State Land Master Plan, and will incorporate the use of Best Management Practices, including but not limited to such considerations as:

- Locating trails to minimize necessary cut and fill;
- Wherever possible, lay out trails on existing old roads or clear or partially cleared areas;
- Locating trails away from streams, wetlands, and unstable slopes wherever possible;
- Use of proper drainage devices such as water bars and broad-based dips;
- Locating trails to minimize grade;
- Using stream crossings with low, stable banks, firm stream bottom and gentle approach slopes;
- Constructing stream crossings at right angles to the stream;
- Limiting stream crossing construction to periods of low or normal flow;
- Using stream bank stabilizing structures made of natural materials such as rock or wooden timbers;
- Using natural materials to blend the structure into the natural surroundings;
- Accessibility to those with disabilities.

Trails will be easily identified from the road/trailhead, clearly marked, and well maintained. Sufficient parking will be provided at the trailhead to accommodate anticipated use and in accordance with that area's resource capacity to withstand use. Where possible, trails will be developed and maintained in partnership with local governments, organizations, and residents.

The Vanderwhacker Mountain Wild Forest will be linked with nearby communities and trail systems through trail connections where feasible, appropriate, and supported by local governments, residents, and landowners. Priority will be given to trail linkages that tie into existing public transportation, reduce the need for new structures and improvements within the unit, support local economic development plans, and foster the development of interpretive and educational programs.

Conflicts between different types of trail use will be minimized, and if necessary, use will be separated. Often, separating use occurs with the changing season (e.g. snowmobiling and mountain bicycling). If demand exists for a type of trail use in an area where it is appropriate but cannot be separated from other trail uses, the use will be allowed on existing trails where shared use will not lead to unacceptable conflicts between trail users or unacceptable physical impacts. On shared-use trails, the Department will

inform visitors about the types of trail uses allowed and will promote the principles of trail-sharing etiquette through trailhead signs and publications. Trail use will be monitored. Should monitoring reveal that the addition of a new type of trail use has caused unacceptable levels of conflict between trail users or unacceptable physical impacts to a trail, appropriate action will be taken to reduce such conflicts or impacts. Action may include elimination of a type of trail use from the trail.

Where appropriate, development of long-distance trails that cross management units and DEC regions will be encouraged. Routes of long-distance trails will incorporate existing trails where feasible and appropriate. However, long-distance trails will not be located where anticipated levels of use on new or existing trails or increased access to adjacent areas will have unacceptable impacts on natural resources, the recreational experiences of visitors, or lands outside the Forest Preserve. Because most long-distance trails cross both public and private lands, the Area Manager will coordinate with private landowners, the managers of other involved public lands and trail organizations in the development and management of long-distance trails.

The Area Manager may close trails at any time when necessary to protect natural resources or the safety of the public.

Trailheads and Parking Areas

Points of access throughout the unit provide valuable locations for providing information and orienting visitors. Visitors receive their first impression of the area from the nature and condition of the trailhead/parking facility. For highway travelers, trailheads and/or parking areas are often the only indication that they are passing through public lands. Access points also provide trailhead registration data that can be utilized in quantifying the public's use of a particular area, and for providing crucial information that may assist in search and rescue operations. Accordingly, DEC will consider the design and maintenance of trailheads, fishing access sites and general access parking areas a matter of prime importance.

Trailhead designs will be standardized to allow visitors to identify the many separate parcels of the Forest Preserve as parts of a single entity and provide complete information in a consistent format. A limited number of standard designs will be developed to make necessary information available to visitors, provide a trail register where needed, and eliminate the problems of supplementary signs and informational clutter.

All parking lot construction and relocation projects will incorporate the use of Best Management Practices, including but not limited to such considerations as:

- Locating parking lots to minimize necessary cut and fill;
- Locating parking lots away from streams, wetlands, and unstable slopes wherever possible;
- Locating parking lots on flat, stable, well-drained sites;
- Using gravel or other appropriate materials to avoid runoff and erosion problems;
- Locating parking lots in areas that require a minimum amount of tree cutting;
- Limiting construction to periods of low or normal rainfall;
- Wherever possible, using wooded buffers to screen parking lots from roads;
- Limiting the size of the parking lot to the minimum necessary to address the intended use.

Lean-tos and Campsites

All lean-to construction and relocation projects will incorporate the use of Best Management Practices, including but not limited to such considerations as:

- Locating lean-tos and campsites to minimize necessary cut and fill;
- Locating lean-tos and campsites to minimize tree cutting;

- Locating lean-tos and campsites away from streams, wetlands, and unstable slopes;
- Use of drainage structures on trails leading to lean-to sites and campsites, to prevent water flowing into site;
- Locating lean-tos and campsites on flat, stable, well-drained sites;
- Limiting construction to periods of low or normal rainfall.

General Construction

All construction projects will be developed in accordance with the Adirondack Park State Land Master Plan, and will incorporate the use of Best Management Practices, including such considerations as:

- Locating improvements to minimize necessary cut and fill;
- Locating improvements away from streams, wetlands, and unstable slopes;
- Use of proper drainage devices such as water bars and broad-based dips;
- Locating trails to minimize grade;
- Using stream crossings with low, stable banks, firm stream bottom and gentle approach slopes;
- Constructing stream crossings at right angles to the stream;
- Limiting stream crossing construction to periods of low or normal flow;
- Avoiding areas where habitats of threatened and endangered species are known to exist;
- Using natural materials to blend the structure into the natural surroundings;
- Reducing or eliminating the introduction and spread of invasive species.

Directional and Informational Signs

The Department produces and posts a variety of signs that provide information about regulations, recommendations, directions and distances to destinations, and resource conditions to those who visit the unit. These signs are posted at trailheads as well as interior locations.

To maintain a consistent and recognizable appearance, the dimensions, materials, colors, and wording of DEC signs will be standardized. To ensure the public's ability to locate the unit's lands and facilities easily, the following guidelines will apply to the design and erection of signs:

- All roadside directional signs, trailhead identification signs and interior guide boards will be made of wood and will be brown with yellow lettering.
- Informational "posters" may be made of metal or plastic and generally will be brown with yellow lettering, although other unobtrusive color combinations may be used, such as yellow or white with dark green lettering, or white with black lettering. Posters or signs intended to draw attention to obstacles or hazardous conditions may be red and white.
- Lettering clearly indicating the unit name and classification; "Vanderwhacker Mountain Wild Forest", will be given in all roadside directional signs and trailhead identification signs.
- Standard boundary signs indicating the Wild Forest classification will be posted every one-tenth mile along all highways that pass through or adjacent to the unit and at other strategic locations, such as points on trails where they pass from private onto state lands.
- All signs removed through vandalism or other causes will be promptly replaced.
- Signs will carry a positive message. Rather than simply citing a regulation, a sign should explain the reasons behind the message.
- Managers will use the smallest number of signs necessary to accomplish an informational or regulatory objective.
- Signs will be clustered on a single sign post or bulletin board placed where they are most likely to be seen by visitors.
- The posting of signs by all DEC divisions will be coordinated through the Area Manager.

- As a general rule, informational signs will be posted on the periphery of a management unit rather than in the interior.
- Signs will be constructed of rustic materials and will be limited in number.
- Only signs that conform to Department rules and regulations and policy will be placed within the unit.

Design Standards

It is useful and desirable to have consistent design standards for all Forest Preserve facilities, structures and improvements. This assists users in quickly recognizing state facilities and obtaining information on services, destinations, etc. Forest Preserve design standards will be developed. Since no formal Forest Preserve design standards exist at this time, the Area Manager will refer to existing documents such as the "Interior Use Manual" and the "Adirondack lean-to plan," when designing or rehabilitating structures. If no specific guidance is available for a structure, it will be designed to incorporate the use of natural materials such as round wood, wood shingles and native stone. The appearance of structures within the unit will conform to the natural environment through the use of colors such as subdued greens, browns and other "earthtones."

Fish and Wildlife Management

Most visitors to the unit observe wildlife incidentally to other activities they may be pursuing. Others are concerned specifically with viewing or pursuing wildlife.

Big game hunters are one of the primary users of the area during the big game hunting seasons. Access for hunting is obtained at trailheads, roadside parking areas, permitted camping areas and from adjacent private property. Trapping is also seasonally popular in the unit.

Wildlife use and observation will be encouraged by maintaining and improving access where appropriate. The Department will support and encourage the traditional use of wildlife resources, particularly hunting and trapping, and will promote and encourage non-consumptive uses such as bird watching and wildlife photography. Population monitoring and research, particularly that associated with the protection of rare, threatened and endangered species, and the management of game populations will be supported.

Fisheries management occasionally requires reclamation. Reclamation is a management technique that involves the application of a fish toxicant (rotenone) to eliminate non-native and/or competing fishes. Upon detoxification, reclaimed waters are generally restocked with brook trout and/or rainbow trout. Natural or artificial barriers which block movement of fish into reclaimed waters are critical to prevent the reintroduction of non-native fishes. Ponds will be reclaimed only if there is no outlet, if a natural or man-made fish barrier is present, or if a fish barrier can be constructed prior to reclamation. Fish barrier dams will be constructed as necessary on the outlets of ponded waters scheduled for reclamation.

All fish stocking projects will be in compliance with the Programmatic Environmental Impact Statement on Fish Species Management Activities of the New York State Department of Environmental Conservation, dated December 1979. All liming projects will be in compliance with the Final Generic Environmental Impact Statement on the New York State Department of Environmental Conservation Program of Liming Selected Acidified Waters, dated October 1990, as well as the Division of Fish, Wildlife and Marine Resources liming policy.

Fishing, trapping and hunting is authorized by Article 11 of the Environmental Conservation Law and regulated by Title 6 of NYCRR, Chapter 1, Parts 1-188. The Code of Federal Regulations provides additional regulatory guidance.

Linking Management Units

The Vanderwhacker Mountain Wild Forest abuts other Forest Preserve lands that have a variety of classifications. Lands classified as Wilderness, Primitive and Intensive Use all surround the unit. Of particular note in relation to the development of facilities, are the Intensive Use Areas and the Historic Area. These public lands are easily accessible parts of the Forest Preserve that annually attract tens of thousands of visitors. Although the recreational potential of these facilities has been developed to a considerable extent, additional opportunities exist. Short trails to scenic locations, loop trails for mountain bicycles, and interpretive trails can make a family campground visit more enjoyable. These opportunities can also facilitate access for persons with disabilities. Access points provided in surrounding campgrounds bring the surrounding Wild Forest closer to the visitor.

New facilities must be carefully designed and constructed so as not to compromise existing facilities. For example, providing free primitive camping opportunities adjacent to an Intensive Use Area could negatively impact the experience of campers staying at the campground, and could also have serious detrimental effects on the natural resources of the immediate area. Also, measures will be considered to ensure that protections specific to each unit's classification are maintained. The linking of management units will be complementary and improve the service and opportunities available to a broad variety of users.

The Americans with Disabilities Act and Its Influence on Management Actions for Recreation and Related Facilities

The Americans with Disabilities Act (ADA), along with the Architectural Barriers Act of 1968 (ABA) and the Rehabilitation Act of 1973; Title V, Section 504, have had a profound effect on the manner by which people with disabilities are afforded equality in their recreational pursuits. The ADA is a comprehensive law prohibiting discrimination against people with disabilities in employment practices, use of public transportation, use of telecommunication facilities and use of public accommodations. Title II of the ADA applies to the Department and requires, in part, that reasonable modifications must be made to its services and programs, so that when those services and programs are viewed in their entirety, they are readily accessible to and usable by people with disabilities. This must be done unless such modification would result in a fundamental alteration in the nature of the service, program or activity or an undue financial or administrative burden to the Department. Since recreation is an acknowledged public accommodation program of the Department, and there are services and activities associated with that program, the Department has the mandated obligation to comply with the ADA, Title II and ADA Accessibility Guidelines, as well as Section 504 of the Rehabilitation Act.

The ADA requires a public entity to examine thoroughly, each of its programs and services to determine the level of accessibility provided. The examination involves the identification of all existing programs and services and a formal assessment to determine the degree of accessibility provided to each. The assessment includes the use of the standards established by Federal Department of Justice Rule as delineated by the Americans with Disabilities Act Accessibility Guidelines (ADAAG, either adopted or proposed) and/or the New York State Uniform Fire Prevention and Building Codes, as appropriate. Each Unit Management Plan prepared by the Department will outline a proposed assessment process and a schedule for completing the assessment. This activity is dependent on obtaining an inventory of all the recreational facilities or assets supporting the programs and services available on the unit. The assessment will also establish the need for new or upgraded facilities or assets necessary to meet ADA mandates, consulting the guidelines and criteria set forth in the Adirondack Park State Land Master Plan. The Department is not required to make each of its existing facilities and assets accessible. The facilities or assets proposed in this UMP are identified in the Management Recommendations section.

The Americans with Disabilities Act Accessibility Guidelines (ADAAG)
The ADA requires public agencies to employ specific guidelines which ensure that buildings, facilities, programs and vehicles as addressed by the ADA are accessible in terms of architecture and design, transportation and communication to individuals with disabilities. A federal agency known as the Access Board has issued the ADAAG for this purpose. The Department of Justice Rule provides authority to these guidelines.

Currently adopted ADAAG address the built environment: buildings, ramps, sidewalks, rooms within buildings, etc. The Access Board has proposed guidelines to expand ADAAG to cover outdoor developed facilities: trails, camp grounds, picnic areas and beaches. The proposed ADAAG is contained in the September, 1999 Final Report of the Regulatory Negotiation Committee for Outdoor Developed Areas.

ADAAG apply to newly constructed structures and facilities and alterations to existing structures and facilities. Further, it applies to fixed structures or facilities, i.e., those that are attached to the earth or another structure that is attached to the earth. Therefore, when the Department is planning the construction of new recreational facilities, assets that support recreational facilities, or is considering an alteration of existing recreational facilities or the assets supporting them, it must also consider providing access to the facilities or elements for people with disabilities. The standards which exist in ADAAG or are contained in the proposed ADAAG also provide guidance to achieve modifications to trails, picnic areas, campgrounds, campsites and beaches in order to obtain programmatic compliance with the ADA.

ADAAG Application

Current and proposed ADAAG will be used in assessing existing facilities or assets to determine compliance to accessibility standards. ADAAG is not intended or designed for this purpose, but using it to establish accessibility levels lends credibility to the assessment result. Management recommendations in this UMP will be proposed in accordance with the ADAAG for the built environment, the proposed ADAAG for outdoor developed areas, the New York State Uniform Fire Prevention and Building Codes, and other appropriate guiding documents. Until such time as the proposed ADAAG becomes an adopted rule of the Department of Justice, the Department is required to use the best information available to comply with the ADA; this information includes, among other things, the proposed guidelines.

Historic and Archaeological Site Protection

The historic and archaeological sites located within the Vanderwhacker Mountain Wild Forest as well as additional unrecorded sites that may exist on the property are protected by the provisions of the New York State Historic Preservation Act (SHPA - Article 14 PRHPL), Article 9 of Environmental Conservation Law, 6 NYCRR § 190.8 (g) and Section 233 of the Education Law. No actions that would impact these resources are proposed in this Unit Management Plan. Should any such actions be proposed in the future they will be reviewed in accordance with the requirements of SHPA. Unauthorized excavation and removal of materials from any of these sites is prohibited by Article 9 of the ECL and Section 233 of the Education Law. In some cases additional protection may be afforded these resources by the federal Archaeological Resources Protection Act (ARPA).

The archaeological sites located on this land unit as well as additional unrecorded sites that may exist on the property may be made available for appropriate research. Any future archaeological research to be conducted on the property will be accomplished under the auspices of all appropriate permits. Research permits will be issued only after approval by the New York State Museum and consultation with OPRHP

and APA. Extensive excavations are not contemplated as part of any research program in order to assure that the sites are available to future researchers who are likely to have more advanced tools and techniques as well as more fully developed research questions.

3. Restrictions

In 1932, the Power and Control Commission within the NYS Conservation Department (precursor to NYS DEC's Division of Water) approved an application by the Town of Schroon for use of Horseshoe Pond as a municipal water supply, pursuant to Article XIV, Section 2 of the State Constitution. Pursuant to Public Health Law, regulations to protect the water supply have been established, which include prohibiting public use of the pond, because of its status as a town reservoir. The reservoir no longer serves as the Town's primary water supply, but does serve as an emergency supply. Therefore, the prohibition of public use is still in effect.

Pursuant to NYCRR §196.5(a)(3), the operation of mechanically propelled vessels is prohibited on Hewitt Lake (Town of Minerva) and Oliver Pond (Town of Schroon).

A complete listing of other restrictions on the unit, or portions thereof, is not practical at this time, since they do not affect the management activities proposed in this UMP. Records of known restrictions are kept by DEC's Bureau of Real Property.

D. Management Principles

The following Wild Forest Management Principles are adapted from the principles of wilderness management presented in Wilderness Management: Stewardship and Protection of Resources and Values, by Hendee and Dawson. They have been modified to apply to the management of Wild Forest lands, consistent with the provisions of Article XIV, Section 1 of the New York State Constitution and the Adirondack and Catskill Park State Land Master Plans.

1. **Manage Wild Forest lands to preserve their wild character while permitting a greater variety of recreational activities and a higher degree of use than are allowed in Wilderness.** Those areas classified as Wild Forest are generally less fragile, ecologically, than wilderness and primitive areas. Because the resources of these areas can withstand more human impact, they should accommodate much of the future use of the Forest Preserve. Within constitutional constraints, those types of outdoor recreation that afford enjoyment without destroying the wild forest character or natural resource quality should be encouraged. "Wild forest character" encompasses, among other things, limited evidence of human works, the presence of unspoiled natural settings, and natural processes unhindered by human interference. Within the Recreation Opportunity Spectrum, lands classified as Wild Forest are generally less wild than lands classified as Wilderness, Primitive or Canoe Areas, yet still provide some probability of experiencing solitude and a high degree of interaction with the natural environment.

2. **Manage Wild Forest as a composite resource.** All the components of the Wild Forest resource–physical, biological, and social–are interrelated, and one management plan must deal comprehensively with those components and their interrelationships. Actions taken for the management of one component must be considered in light of how they will affect other components. Each component must be viewed as a part of the larger whole which is the Forest Preserve resource.

3. **Ensure that the natural and recreational environment of Wild Forest lands will not be degraded.** Wild Forest lands will be managed to maintain existing environmental conditions and to restore those areas in which resources have been or are being degraded below minimum levels. Minimum levels will be established in UMPs, which will conform with the guidelines of the Adirondack and Catskill Park State Land Master Plans. Resource conditions will be monitored and evaluated. Management actions will respond to specific areas in which changes in resource conditions exceed acceptable levels specified in the plan, or obvious impacts to resources are occurring.

4. **Protect Wild Forest lands by managing human influences.** Wild Forest lands will be managed to provide for a variety of outdoor recreational uses so long as those uses do not degrade the natural resources or wild forest character of the unit to an unacceptable degree. Care will be taken to prevent overuse of areas within the unit, to minimize impacts on natural resources and to preserve the quality of the wild forest recreational experience for visitors, as well as preserve the experience of other users. Each Wild Forest UMP will identify the existing and potential impacts of human activities on the unit and present management actions to address them.

5. **Manage Wild Forest lands for human values and benefits.** The Forest Preserve as a whole is valued as a protected landscape, where natural processes operate with minimal human influence, as a wild setting for primitive and unconfined types of recreation, as a symbol of the beauty and power of nature, as a resource for scientific study, and as an economic asset to the Adirondack and Catskill regions. Wild Forest lands will be managed to optimize their value as a setting for a variety of recreational activities within the context of their value as part of a constitutionally protected landscape.

6. **Encourage types of primitive and unconfined recreation on Wild Forest lands that are not dependent on a wilderness environment.** Consistent with their position on the Recreation Opportunity Spectrum, Wild Forest areas should accommodate those uses, such as regulated snowmobiling, motor boating, float plane use, all-terrain bicycling and group camping, which do not require the more pristine setting of wilderness, to the extent appropriate under the guidelines provided in the Adirondack and Catskill Park State Land Master Plans.

7. **Establish specific management objectives, with public involvement, in a comprehensive written management plan for the unit.** Within the constraints of Article XIV, Section 1 of the New York State Constitution and the Adirondack and Catskill Park State Land Master Plans, managers and the public will determine management objectives and actions for each Wild Forest unit in a written UMP, rather than reacting to situations on an ad hoc basis. Resources and the experiences of visitors will be monitored and evaluated for consistency with objectives as measured against standards set in the plan. Management actions will be adjusted through the planning process, if necessary, to meet stated objectives.

8. **Establish carrying capacities as necessary to prevent unacceptable unnatural change.** Recreation should be managed such that impacts to the biological/physical and social/psychological conditions of the unit are kept within acceptable levels as set in the plan. Management should not focus on complete preservation of present resource conditions, but rather on allowing natural processes and change to occur with moderate evidence of human interference. Unnatural change, such as soil compaction at tent sites, should be tolerated, but only up to established limits. The desired level of opportunity for human interaction among people and

groups should be set in the plan, so that the social experiences found on the unit does not become closer to that of more developed recreation areas.

9. **Monitor Wild Forest conditions to guide long-term management.** Once the carrying capacity of a specific Wild Forest area is established, it is essential that the biological/physical and social/psychological conditions of the area be monitored to track the success of management efforts in achieving carrying capacity objectives over time. The subjects of monitoring efforts should include the direct effects of use as well as the indirect effects of human activity, such as air pollution and the establishment of exotic plants and animals.

10. **Focus management on threatened sites and damaging activities.** Allocation of efforts and limited resources must first concentrate on those areas and activities that are having the greatest negative impact on natural resources and visitor experiences.

11. **Use the "minimum tool" necessary to accomplish management objectives.** Each management action will be reviewed to determine the minimum action or tool (practices, tools, equipment, regulations) that will be effective in accomplishing the task. Management will seek the approach from available alternatives that will achieve the management objective while having the least possible negative impact on the resources and the experiences of visitors. While the review of alternatives should include cost analysis, the potential degradation of resources will be considered before, and given more weight than, economic efficiency and convenience. When public use must be controlled to prevent resource degradation, education will be the preferred option followed by the minimum degree of regulation or control necessary to meet management needs.

12. **Involve the public in the management of Wild Forest lands.** The public will be afforded the opportunity to be directly involved with the process of developing UMPs for Wild Forest lands through comments forwarded directly to DEC and received at public meetings, and when necessary through such means as focus or discussion groups, surveys and other citizen participation techniques. In addition, volunteer efforts will be encouraged as a means by which Wild Forest UMPs will be implemented.

13. **Manage Wild Forest lands in relation to the management of adjacent lands.** Wild Forest lands must be viewed as a part of the larger landscape, which includes nearby communities and private lands as well as other public lands. Wild Forest management should be coordinated with the management of adjacent state and private lands in a manner that recognizes differing land management goals. This applies not only to the effects that management actions taken in the Wild Forest unit may have on adjacent lands, but also to the effects that management of adjacent lands may have on the Wild Forest unit.

E. Management Issues and Desires

Several issues are of concern to the Department and the public in the development of this plan. Information has been obtained from the public by way of a Scoping Session, held on August 25, 2000 at the Newcomb Town Hall, as well as through mail, email, phone calls, and other conversations between DEC staff and the public. The following issues and desires were received from the public and DEC staff. Some of the issues and desires have not resulted in Management Recommendations and may not be discussed further in Section IV. Where this has occurred, a justification for the exclusion is provided in italics.

1. Camping

- Build lean-to's on Cheney Pond, the Hudson River, Wolf Pond, and the Boreas River.
- Clean-up problems associated with at-large camping at Muller Pond.
- Provide camping on VMWF to alleviate pressure on Santanoni.

2. Trails and other facilities

- Construct new foot trails to Wolf Pond, Lower Duck Hole, Grassy Pond, Hotwater Pond, Nate Pond, Dutton Mountain, the Moxham Range, Burroughs Cave, the Hudson River, and the parcels south of HNWA.
- Improve and designate the existing herdpath to Vanderwhacker Pond.
- Extend the Linsey Marsh trail north to the Boreas River and northeast to Lester Flow.
- Construct horse trails, specifically between Santanoni and the Lake Harris Campground.
- Develop multi-use trails.
- Develop interpretive trails.
- Open trails to mountain bikes.
- Reopen old nordic ski trails in the Raymond Brook drainage and around Pete Gay Mountain.
- Construct new nordic ski trails in the vicinity of Santanoni, Linsey Marsh, and the access to VMWF from Route 28N in Newcomb.
- Formalize use of the D&H Railroad tracks for nordic ski use.
- Provide groomed ski trails.

  In the Adirondack Park, groomed ski trails on public land are generally provided on only a few units, such as Mount Van Hoevenberg Winter Recreation Area. Furthermore, the APSLMP prohibits the use of motor vehicles in the grooming of ski trails in Wild Forest areas. Due to this as well as fiscal restraints, the Department is unable to groom ski trails in VMWF with or without the use of motor vehicles. Opportunities exist on adjacent private and public land to ski on groomed trails.

- Construct family loop trails.
- Construct trails that link VMWF to other state land units and nearby hamlets.
- There is a need for more foot trails.
- Improve trail maintenance, specifically on the Linsey Marsh trail.
- Support volunteer maintenance of trails and facilities.
- Improve opportunities for recreation for persons with disabilities.
- Improve or provide canoe launches at Balfour, Oliver, Cheney, the Hudson.
- Secure public portages along the Hudson River.
- Determine a course of action in maintenance of the Ranger Cabin on 28N.
- Support the routing of the North Country National Scenic Trail.
- Provide a firing range.

  The APSLMP does not provide for designated firing ranges in Wild Forest areas.

3. Snowmobiles (general)

- Create snowmobile trails in this unit that facilitate snowmobile access between the communities of Minerva, Newcomb, Pottersville, and Schroon Lake.
- Use/do not use D&H Railroad tracks when providing snowmobile access between communities.
- Use/do not use Cheney Pond and Hewitt Pond trails when providing snowmobile access between communities.
- Minimize snowmobile travel along roads.
- Limit new snowmobile trails to existing travel corridors.
- Place new snowmobile trails at the edges of Wild Forests rather than through the center.

- Maximize/minimize snowmobile travel on state land.
- Widen/do not widen snowmobile trails within the unit.
- Build new trail to get snowmobiles safely off Harris Lake.
- Provide proper and highly visible signage at Santanoni gatehouse if snowmobile trail is developed between Santanoni and Lake Harris Campground.
- Recognize positive economic impact of snowmobile trails.
- Build a snowmobile bridge over the Boreas River at Lester Dam.
- Build snowmobile trail along the Boreas River from 28N to Lester Flow.

  This proposal cannot be entertained due to the Scenic classification of the above section of the Boreas River. The Wild, Scenic and Recreational Rivers Act limits construction of motorized vehicle roads and trails within the river area of a Scenic River. Although the river area may, under certain conditions, be crossed by motorized vehicle roads and trails, the construction of such roads and trails along the river is discouraged in the Act.
- Build snowmobile trail from Northwoods Club Road to the hamlet of Minerva.

4. Vanderwhacker Snowmobile Trail

- Close the trail permanently.
- Reopen the trail.
- Replace the trail elsewhere if it is permanently closed through the UMP process.
- Use/do not use the trail in the trail facilitating access between Minerva and Newcomb.

  All of the above proposals are examined later in the UMP in the discussion of providing snowmobile access between the communities of Minerva and Newcomb.

5. Parking and Trailheads

- Provide a safe parking area on the Blue Ridge Road for the Roosevelt Truck Trail and the trail to Vanderwhacker Pond.
- Create a trailhead and parking where VMWF abuts 28N in Newcomb.
- Make coordinates available at trailheads for public use.

  Given the fact that trailhead coordinates can already be obtained from existing sources, and the likelihood that such information would be superfluous to all but a small number of people, the Department believes it is not necessary to include such information at trailhead kiosks or registers.

- Plow parking area for Cheney Pond-Lester Flow trail.

  The parking area is currently plowed by Department staff based at Camp Santanoni. The lot may not always be plowed in a timely fashion. An effort will be made to improve the timeliness of that plowing within current staffing levels.

- Do a better job of identifying unit classification and rules and restrictions at the trailhead.
- Provide equestrian parking on VMWF to alleviate pressure on Santanoni.

  The recently adopted Unit Management Plan for the Camp Santanoni Historic Area (CSHA) addresses this problem through the proposal to provide additional parking for equestrian users at the gatehouse complex. No further parking area construction is contemplated in this VMWF UMP. Such a proposal may be addressed in future updates to the VMWF or CSHA UMPs, if it is determined that parking within CSHA is still insufficient.

6. Motorized Use

- Allow/prohibit ATV and other off-road vehicle use in this unit.

  The available infrastructure and facilities of the unit, when reviewed under the APSLMP Wild Forest Guidelines for Management and Use and current policies, do not allow for the development of ATV trails within the unit. There are very limited ATV riding opportunities anywhere on Forest Preserve lands within Region 5.

- Brush and maintain Cheney Pond Road.
- Increase Department share of maintenance of Moose Pond Road.
- Rebuild Santanoni road properly.

  Although it was formerly considered to be a part of the VMWF, Camp Santanoni is now classified as a separate state land unit. This plan will not address improvements to facilities that are located outside the planning area.

7. Real Property

- Do a better job of maintaining boundary lines.
- Improve posting/signage of VMWF lands.
- Establish public access to the North River Mountains parcel.
- Settle Real Property disputes including:

  a. Access Roads - There are several access roads (not currently maintained by local or state government) over VMWF that are not driven by the general public, but lead to private land and are used by private landowners and their guests to access their land via ATV and 4WD vehicles. These include:

  - Four wheel drive road across state land on lot 37, Township 26, Town of Minerva. This accesses the private inholding on lot 38, owned by Finch, Pruyn & Company, Inc. The length on state land is approximately 0.25 miles. It is used by the owner and their lessees.
  - Road across lot 16, Thorn's Survey, Township 27, Town of Newcomb. This accesses an inholding on lot 25, owned by Finch, Pruyn & Company, Inc. The length on state land is approximately 0.25 miles. It is used by the owner and their lessees.
  - Stony Pond - Irishtown snowmobile trail. The southern end is occasionally traversed via ATV as far as Big Sherman Pond.
  - Cheney Pond - Irishtown snowmobile trail. The southern end is traversed via ATV, presumably by owners of the private inholdings near Mud Pond and their guests to access the properties.
  - Road across Lots 118 and 119 in Township 26, accessing an inholding on lot 118. The length on state land is approximately 0.75 miles. A TRP was issued in 1997 allowing the owner to use the road in the removal of forest products. However, there is no known deeded right-of-way to this property across state land.
  - Access road across Lot 32 of Thorn's Survey of Township 27 to reach privately-owned camp on Lot 22
  - Access road across Lot 46 of Bailey's Patent in Township 25 to access private property on Lot 47.

All claims by inholders regarding rights of access across Forest Preserve in VMWF should be substantiated by documentation produced by private inholders and will also be researched by DEC.

b. Encroachments

- There is a building located partially on state land on the boundary between Hoffman Township Lot E and Tract West of Road Patent Lot 174.[1] The driveway to this building - and to the adjacent private parcel - begins on state land. Department legal review indicates that this driveway is not a legal right-of-way and should not be used for motorized access to the property.
- Investigate other encroachments as they arise, including timber trespass.

c. Questionable Ownership

- Lot 94 Hoffman Township - The eastern portion of lot 94, Hoffman Township, Town of Minerva is in dispute, as a portion of this piece is deeded to a private individual. The current owner was aware of the conflicting claims when he purchased the property, and does not plan to log or build on the disputed portion. A survey request was filed in 1979 following a timber trespass. The State was unable to determine title, the survey was never done, and the charges against the logger were dropped. To this date, it is not known how much of lot 94 is owned by the state.
- Lot 93 Hoffman Township - On DEC and APA maps, the entire lot is represented as state land. However, it seems the northwestern portion of the lot may be privately-owned and the south eastern portion is state-owned. The unusual shape of the Great Lot may have lead to the possible misrepresentation on state maps. The ownership will be investigated and reflected in future maps.
- Lot 41, Township 14, Pond's Survey - The southeast corner of lot 41, Township 14, Pond's Survey, Town of Minerva is in dispute. A camp is situated on this parcel. DEC Real Property Staff have determined that the State owns the parcel, and staff are in contact with the private citizen who also claims ownership.
- Lot 28, Township 14, Pond's Survey - The location of the southeastern boundary line is unclear. An old camp at the end of the woods road appears to be located on state land. The line should be re-established and the building removed if it is indeed located on state land.

8. Other

- Allow salvage cutting on the Forest Preserve.

The lands of the Forest Preserve are protected by Article XIV, Section 1 of the New York State Constitution, which provides, in part:

> *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... nor shall the timber thereon be sold, removed or destroyed.*

Although salvage cutting has occurred on the Forest Preserve in the past, viz, the park-wide blowdown event of 1950, pursuant to legislation, it should be noted that this is the only time that salvage cutting has been allowed on Forest Preserve land.

- Increase Forest Ranger and Surveyor staffing for VMWF.
- Remove non-conforming structures, facilities, and uses.
- Seriously consider citizen's comments.

[1]This building has since been torn down, although some C&D material may still remain on VMWF lands and should be removed.

- Test streams for potability.

  The Department cannot regularly test waters in VMWF for potability. To be safe, recreationists should always filter water from any stream or waterbody in VMWF before drinking.

- Improve economic opportunities in winter.
- Make significant forest types known to the public, like Boreas Hardwoods and the large-diameter white pines at north end of Vanderwhacker Trail.

SECTION IV: MANAGEMENT RECOMMENDATIONS

This section of the plan breaks down the various resources of the unit into the following categories; bio-physical resources, land protection, man-made facilities and public use and access. Each category is further broken down into component units where the present conditions are assessed, management objectives developed and management actions proposed. All recommended actions are consistent with the management guidelines and principles outlined above, and are based on information gathered during the inventory process, through public input and in consultation with the Planning Team. For each proposed activity, the appropriate permits, if any, will be acquired prior to construction. In addition, all of the proposed management actions involving construction described on the following pages will be undertaken in accordance with the best management practices discussed on pages 67-69 in order to avoid or mitigate environmental impacts.

A. Bio-Physical Resource

1. Water

Present Conditions:

The DEC Bureau of Fisheries routinely conducts biological surveys to assess and monitor fish populations in area waters. Additionally, the Adirondack Lakes Survey Corporation (ALSC) conducts water quality studies researching the effects of acid deposition on aquatic ecosystems. The DEC Division of Water conducts the statewide Lake Classification and Inventory (LCI), which is a comprehensive lake monitoring program that measures both water chemistry and biological parameters to evaluate lake water quality and trophic condition. No VMWF waterbodies are currently included in the LCI.
No studies have specifically focused on the effects of recreation use on water quality.

Objectives:

- To maintain, protect and/or improve the quality of the area's water resources.
- To gain detailed knowledge on the public's use of the area's waters, and how that use may be negatively impacting water resources.

Management Actions:

- Continue existing research and management activities that monitor the effects of acid deposition and recreational use on water resources. Support new research as appropriate (e.g. funding, staffing, permitting, etc.).
- Develop a system to monitor public use of the area's water resources. Establish and maintain register journals on the area's larger waterbodies (including Balfour Lake, Cheney Pond, and Oliver Pond).
- At the discretion of the Area Manager, close or rehabilitate shoreline areas impacted by overuse.
- Add three VMWF waterbodies to the LCI in order to begin representation of the unit in that program. The waterbodies will be chosen based on ease of access for data gathering.

2. Soil

Present Conditions:

Determinations of various soil types within the unit are general. Little information has been compiled on soil loss and/or degradation within the unit, except that there are a few sites where soil disturbances on trails require rehabilitative actions. These areas were discussed in Section II of this UMP. Overuse, changes in hydrology, and poor design have all contributed to negative impacts on soil resources at a few

select locations. However, guidelines that limit the development and type of recreation that can occur within the unit have served well in overall protection of the unit's soil resources.

Objectives:

- To minimize negative impacts to the soil resources of the unit caused by recreational use.

Management Actions:

- Through field observation, inventory and monitor soil conditions within the unit affected by recreational use.
- Develop LAC indicators and standards for soil erosion.
- When LAC standards are exceeded, correct undesirable conditions by rehabilitating the area and/or relocating use to more durable sites.
- The Area Manager, in accordance with existing guidelines, will close, relocate, or restrict use of unit facilities, as appropriate, to reduce negative impacts to soil resources caused by recreational use.
- Concentrate trail maintenance efforts on areas prone to erosion and overuse.
- Design, locate, and construct all new structures and improvements in ways that will minimize the potential for soil erosion.

3. Wetlands

Present Conditions:

The APA has authority under the NYS Freshwater Wetlands Act (1975) and the Adirondack Park Agency Act (1971) to regulate wetlands within the Adirondack Park. This authority extends to all wetlands over one acre in size, or any size wetlands adjacent to open water. Wetland inventories and maps for the entire Park are incomplete. A comprehensive wetland inventory and additional mapping are needed.

Objectives:

- To preserve and protect wetland community vegetation and associated plant species.
- To minimize the amount of wetland disturbances and impacts caused by the construction, maintenance and use of structures and improvements.

Management Actions:

- Coordinate all future construction and maintenance activities that may affect wetlands with the Adirondack Park Agency to determine wetland boundaries and the need for wetlands permits.
- Install bridges, culverts and other erosion control devices as appropriate to protect wetland areas.
- Promote the development of GIS information to assist managers in accessing inventoried wetland data.
- Relocate any trails or facilities when necessary to reduce the impacts on wetlands or associated vegetation.
- Install and maintain erosion control devices on trails to minimize soil movement into wetlands.
- Minimize the impacts of construction and maintenance activities on wetlands.

4. Vegetation

Present Conditions:

Forest succession and natural and human disturbances have impacted the distribution and types of vegetative cover within the unit over time. However, due to the stringent constitutional protections, human disturbances have had little impact on the unit's vegetation in the past century. Impacts directly

attributed to recreational use do exist, but these problems are concentrated to areas of high use and are not widespread.

Objectives:

- To continue to allow natural processes to function in the succession of plant communities.
- To protect species and ecological communities identified as rare, threatened or endangered.
- To support research efforts that monitor and map forest health and changing forest conditions.
- To prevent the spread of invasive plant species.

Management Actions:

- Enforce existing policies and regulations that protect the unit's vegetation.
- Relocate existing facilities, or locate and construct new facilities where they will not impact rare, threatened or endangered plant species or communities.
- As authorized by New York Education Law § 235-a and pursuant to Environmental Conservation Law § 3-0302, support the New York State Biodiversity Research Institute in the identification of lands and waters that harbor plants, animals and ecological communities that are rare within the unit.
- Continue to allow and support forest research activities by Temporary Revocable Permit.
- When reclamation or restoration of an area negatively impacted by recreational use is necessary, utilize only native vegetation.
- Develop LAC indicators and standards for condition of vegetation in camping areas and near riparian areas.
- Monitor vegetation in high-use areas to determine overuse and the need for restricting use in such areas.
- Assist the New York Natural Heritage Program in monitoring the presence of rare, threatened and endangered plants and significant plant communities where they occur within VMWF.
- Continue to work with the other organizations of the Adirondack Park Invasive Plant Program to detect, prevent the spread of, and remove populations of invasive plants from VMWF. As part of this effort, the known population of Japanese Knotweed on VMWF along the Northwoods Club Road will be removed. See Appendix R for additional information.
- No aquatic plant occurrences are reported within the Vanderwhacker Mountain Wild Forest, therefore there are no management recommendations prescribed at this time. However, several lakes southeast of the unit are documented with infestations which could spread to uninfected waters, thus ongoing inventory is required to detect new invasive plant occurrences in uninfected lakes. Waters with public access should be regularly inventoried for the presence of aquatic invasive plants. If aquatic invasive plant infestations occur, rapid response should be implemented by hand-pulling plants via the guidelines set forth by the Adirondack Park Agency's "Advice on the Hand-harvesting of Nuisance and Invasive Aquatic Plants." Additional methods may be required to manage an infestation to contain, reduce, or eradicate the population. Management will require assessing a set of criteria to evaluate site conditions to determine appropriate and permitted actions.
- The Department will enter into cooperative partnerships through Adopt-a-Natural-Resource Stewardship Agreements (ANRSA) and TRP's to facilitate containment and eradication of the invasive plant occurrences within the unit. Any eradication work involving the use of herbicides will be carried out under an Inter-Agency Work Plan for Management of Terrestrial Invasive Plant Species on State Land in the Adirondack Park (Invasive Plant Work Plan), developed by DEC and APA. This Invasive Plant Work Plan will provide a template for the process through which comprehensive active terrestrial invasive plant management will take place on state lands in the Adirondack Park. The Work Plan will provide protocols for implementing BMP's on state

land. The protocols will describe what management practices are acceptable and when they can be implemented, who can be authorized to implement the management practices, and which terrestrial invasive plant species are targeted. The Work Plan will also describe a process by which the Department may enter into ANRSA's to facilitate individuals or groups seeking to manage terrestrial invasive plant species on state lands using the listed Best Management Practices, including herbicide use, in the appropriate circumstances. The Invasive Plant Work Plan will be subject to SEQRA and serve as the mechanism for assessing the impacts and suitability of eradication BMP's and actions.

5. Wildlife

Present Conditions:

Wildlife management within the Forest Preserve is largely passive in nature. Cutting or burning of vegetation to modify wildlife habitat is not permissible. Because natural succession is allowed to progress toward ecological climax on Forest Preserve lands, some wildlife populations will increase, and many others will decrease over time as these changes occur. The Forest Preserve concept provides a strategy of land preservation, allowing for minimal management. Natural processes, in conjunction with fire suppression, will change the character of the forest over time.

Objectives:

- To perpetuate, support and expand a variety of wildlife recreational opportunities, including wildlife observation and photography, and sustainable hunting and trapping pursuits, as desirable uses of wildlife resources.
- To assure that wildlife populations are large enough to contain sufficient genetic diversity to maintain population health and withstand disturbances.
- To minimize the damage and nuisance caused by wildlife.
- To meet the public's desire for information about wildlife and its conservation, use, and enjoyment.

Management Actions:

- Manage and protect wildlife through enforcement of the Environmental Conservation Law and applicable Rules and Regulations.
- Support traditional use of the unit's wildlife resources, particularly activities designed to perpetuate hunting and trapping programs and hunter education efforts.
- Continue to monitor and inventory wildlife populations, particularly game species and those classified as rare, threatened, endangered or special concern.
- Active management of wildlife populations will be accomplished primarily through hunting and trapping regulations developed by Wildlife Management Unit. Continued input from Citizen Advisory Committees will be considered in determining desirable levels of wildlife.
- Re-establish, to the extent possible, self-sustaining wildlife populations of species that are extirpated, endangered, threatened or of special concern in habitats where their existence will be compatible with other elements of the ecosystem.
- Provide information, advice and assistance to individuals, groups, organizations and agencies interested in wildlife whose activities and actions may affect, or are affected by, the wildlife resources or the users of wildlife.
- Provide information, advice and/or direct assistance to requests for relief from or solutions to reduce or alleviate problems with nuisance wildlife.

6. Fisheries

Present Conditions:

The Vanderwhacker Mountain Wild Forest supports a diverse fishery resource that includes several well-used waters. Fish management in the Vanderwhacker Mountain Wild Forest has emphasized brook trout, brown trout, largemouth bass, smallmouth bass and various panfishes. Intensive management efforts such as special regulations, fish stocking, and pond reclamation have been utilized to enhance and restore brook trout in several unit waters. Such actions may also be necessary in the future depending upon the spread of undesirable non-native species.

Objectives:

- To maintain the diversity of coldwater and warmwater fish populations in the unit.
- To encourage and promote angler use of the waters in the unit through routine fish management practices including hotlines, correspondence and contact with the public by Department staff.

Management Actions:

- Conduct biological surveys of waters within the unit as required.
- Manage Barnes Pond, Big Sherman Pond, Black Pond, Center Pond, Hewitt Pond, Lost Pond (P382a UH), Nate Pond, Stony Pond, Twenty-ninth Pond, unnamed pond (P551a UH), and Wolf Pond as Adirondack brook trout ponds.
- Manage Newcomb Lake, Oliver Pond, Rankin Pond, and Vanderwhacker Pond as coldwater ponds.
- Reclaim Black Pond, Center Pond, Oliver Pond, Stony Pond (along with unnamed pond P558a-UH), and Vanderwhacker Pond upon establishment of additional fish(es).
- Reclaim Nate Pond when a donor population for the Nate Pond strain of brook trout is established.
- Reclaim Bigsby Pond and Twenty-ninth Pond if concerns from private landowners are addressed. The specific concerns of these landowners have not been identified, but typical concerns include: generic unease about the use of chemicals; temporary restrictions on use of the water until the rotenone has dissipated; and objections to the concept of eliminating the present fish community to restore native species.
- Provide a car top, ADAAG compliant boat launch on Balfour Lake, and create/improve trails into Wolf and Vanderwhacker Ponds.
- Annually inspect and maintain the man-made fish barrier on the outlet of Oliver Pond.
- Additional proposed management actions are provided in Appendix B, Individual Pond Descriptions.

B. Land Protection

1. Administration

Present Conditions:

Administration of the area is the responsibility of DEC staff from Region 5 assigned to the Divisions of Lands and Forests; Operations; Fish, Wildlife and Marine Resources and the Office of Public Protection.

Objectives:

- To improve coordination between the various Divisions in the management of the area.
- To improve the monitoring of public use of the unit.
- To protect the natural resources of the area.

- To ensure the management of the area complies with all applicable rules, regulations, policies, guidelines, laws, constitutional provisions and the APSLMP.

Management Actions:

- An annual Work Plan meeting will be scheduled and organized by the Area Manager. The meeting will involve appropriate staff from the Divisions of Operations, Lands and Forests, Fish, Wildlife and Marine Resources, and the Office of Public Protection. The purpose of the meeting will be to improve coordination and communication between staff involving the maintenance and management of this unit, and other nearby units as deemed appropriate. The result of the meeting will be an Annual Work Plan, prepared and distributed by the Area Manager, that will outline project-specific materials, time and financial allocations and staff assignments necessary to manage this area. Maintenance activities and projects to be completed by volunteers will be identified in the Work Plan and arrangements made for the supervision of such work. Copies of the Annual Work Plan will be provided to the appropriate Regional Program Supervisors and the Regional Director.
- Develop a system to monitor the public use of the area. Establish and maintain register journals at popular lean-tos and trail registers at popular trails. Supplement trail register data with site sampling techniques (trail timers, head counts, infrared counters, visitor surveys, etc.) to determine actual public use numbers better.
- Utilize Adopt-A-Natural Resource Agreements, where feasible, to enhance DEC maintenance activities.
- Investigate and resolve Real Property problems, including those outlined in the Management Issues, Needs and Desires section of this document as well as those listed below:
    - Hoffman Township, Lots 74, 80, & 81 - The property lines in the vicinity of Ledge Hill, Pine Hill, Green Hill, and Alder Brook in the Towns of Schroon, Chester, and Minerva should be located and marked.
    - Hoffman Township, Lots 66, 95, and 96 - The property lines in this vicinity should be located and marked.
    - Township 14, Pond's Survey, Lots 44 and 52 - The west line of Lot 44 from Fourteenth Road to the south corner and the north line of Lot 52 should be located and marked.
    - Township 25, Thorn's Survey, Lot 30 (Town of Minerva) - The south and west property lines should be located and marked.
    - Township 30, Lot 24 (Town of Minerva) - Property line around the "Kay's Place" inholding should be established.
- Work with the APA to investigate inaccuracies regarding VMWF in the 2003 APA State Land Map, as outlined in Appendix J. Update the map to reflect actual state ownership and land classification, if necessary.
- Mark and maintain boundary lines according to established department policy with particular attention in the following locations:
    - Hoffman township:
        Lot E - approximately 1 mile
        Lot 38 - approximately 1 mile
        Lot 56 (back line of private land near Oliver Pond) - approximately 0.3 miles
        Lots 86-90 (parcels neighboring Scaroon Manor) - approximately 4 miles
    - Township 30
        northeast line of Township from Blue Ridge Rd to Boreas River - approx. 3 miles

2. Open Space/Land Acquisition

Present Conditions:
The State's land acquisition efforts are guided by the most current copy of Conserving Open Space in New York State, commonly referred to as the "Open Space Plan." Authorized by a 1990 Act of the Legislature (ECL § 49-0207), the Open Space Plan was prepared through a joint effort between the DEC and the Office of Parks, Recreation and Historic Preservation. These two agencies also worked with nine Regional Advisory Committees appointed jointly by the State and local governments. The most recent version of the Open Space Plan was approved in 2002. Two of the most often cited priorities for the State in acquiring open space are to limit development and to increase public access to water resources and existing State lands. Priorities in VMWF should include securing easements for portages along the upper Hudson River and improving access to the landlocked North River Mountains parcel in the Towns of Newcomb and North Hudson.

Objectives:
- To encourage land acquisition efforts that enhance public access to existing VMWF lands.
- To complete a land acquisition needs assessment for the area in accordance with the Open Space Plan.

Management Actions:
- Pursue fee title acquisitions that afford increased and improved access, consolidate state holdings and ease administration and enforcement efforts using a "willing seller" approach.
- Where fee title acquisition is not an option, or when easements are a better option, acquire easements to improve and enhance public access, recreation and/or open space protection.

C. Man-Made Facilities

1. Trails

Present Conditions:
The unit's trail system contains a mix of trails marked for both snowmobile and/or foot travel. The 28N State Highway corridor is the beginning point for many of the trails, such as those leading to Stony Pond, Hewitt Pond, Rankin Pond, Vanderwhacker Mountain, and the Boreas River. The Cheney Pond snowmobile trail travels between the Blue Ridge Road and Irishtown and forms the boundary between VMWF and Hoffman Notch Wilderness Area. Short sections of trail in the Little Gore area cross state land, and a foot trail connects Camp Santanoni Historic Area and the Lake Harris Campground. Maintenance of the trail system is accomplished by DEC Operations staff, SCA staff and volunteers, other volunteers, and local municipalities and by contracting work as funds are available. Often, due to the remote character of the area, maintenance is reactive rather than planned. As a result, many remote trail locations do not receive the attention they require unless problems are specifically brought to the Department's attention.

Objectives:
- To provide a trail system that offers the public safe and appropriate opportunities for desired levels of permissible use.
- To provide better coordination and communication between DEC Divisions, volunteers and local municipalities for the maintenance of existing trails.
- To upgrade and maintain existing trails to the specifications as outlined in the Department's Trail Construction and Maintenance Manual.
- To provide snowmobile access between the communities of Minerva and Newcomb

Management Actions:

- All trail work will comply with existing Department policy regarding work and project plan development. Project Plans for trail work will be integrated into the Annual Work Plan outlined above. As required, the Department will consult with the APA and maintain full compliance with the State Environmental Quality and Review Act (SEQRA) on any projects where new trails are constructed or existing trails are relocated. Specific proposals follow in this section.
- Develop LAC indicators and standards for extent of soil erosion on trails.
- The marking and/or maintaining of trails not recognized by the Department (unofficial trails) will be discouraged. Efforts will be made to either legitimize such trails by officially marking and maintaining them or to close them.
- Maintain and construct all snowmobile trails within the unit in accordance with existing policies and guidelines. These trails will be maintained to have essentially the same character as a foot trail, in compliance with the definition of "snowmobile trail" in the APSLMP. In those cases where trails to remain open have grown in, reducing the trail width, the trails will be cleared according to policy standards. Any trees to be cut as part of this work will be identified in a work plan, AANR agreement or TRP or specifically approved by the Regional Forester, consistent with Department policy LF91-2.
- Construct a foot trail to Moxham Mountain in the Town of Minerva. The trail will commence from Fourteenth Road and be approximately 2 miles long. See Appendix J for a more detailed description.
- Construct a foot trail to Wolf Pond in the Town of North Hudson. The trail will commence from the Blue Ridge Road and be approximately 2 miles in length. See Appendix J for a more detailed description.
- Construct a short interpretive family trail system through VMWF connecting the Visitor Interpretive Center at Newcomb to the Camp Santanoni Historic Area. See Appendix J for a more detailed description.
- Designate, mark, and maintain the existing herdpath leading to Vanderwhacker Pond from the Blue Ridge Road. The trail, which follows Vanderwhacker Brook and crosses it three times, is presumably used by local anglers due to a once excellent trout fishery. (Competition with golden shiners is the most likely cause for the decline; brook trout seem to be particularly vulnerable to competition in relatively shallow ponds like Vanderwhacker). The marked trail will follow sections of the herdpath, but will avoid wet areas and seek to reduce the number of stream crossings. Reclamation of Vanderwhacker Pond by Fisheries staff is proposed if additional fish species become established. The trail is also intended for winter use, including nordic skiing and snowshoeing. Upgrade of existing informal parking area is proposed in Trailheads Section below.
- Upgrade existing trail and construct new trail to create a Raymond Brook nordic ski trail on state land between Barton Mines Road and State Route 28. See Appendix J for a more detailed description.
- Designate and construct a snowmobile trail which will provide snowmobile access between the communities of Minerva and Newcomb, using a combination of existing trails and new trail construction on public and private land as outlined in Appendix I. The DEC will work closely with the APA during new trail layout, design, and construction to obtain wetlands permits, if necessary and to develop appropriately detailed work plans. Any trees to be cut as part of this work will be identified in a work plan, ANRSA agreement or TRP or specifically approved by the Regional Forester, consistent with Department policy LF91-2.
- Designate and construct a snowmobile trail which will provide snowmobile access between the hamlets of Pottersville and Schroon Lake, using a combination of existing trails and new trail construction on public and private land as outlined in Appendix I.
- Reopen Vanderwhacker trail to snowmobiles as outlined in Appendix I.

- Construct a snowmobile trail between the DEC Operations garage at the Camp Santanoni Gatehouse and the Lake Harris Campground. Currently, snowmobile traffic traveling from Long Lake and the west side of Newcomb must travel across Lake Harris to reach the east side of the town. In particular, traffic accesses the lake via the town beach, crosses the lake and then leaves it via the state campground and follows Campsite Road to its intersection with Route 28N. In the interest of making the route safer and avoiding crossing the ice of Lake Harris, it is proposed that the route from 28N follow Newcomb Lake Road across the bridge and continue as far as the Santanoni parking lot and then head east past the Operations shop and generally parallel the existing foot trail to the DEC campground. To be suitable for snowmobile use, the new trail should be built generally upslope from the current foot trail, avoiding wetlands and steep slopes. Furthermore, the new trail should be designed and designated for bicycle use in the non-winter months, facilitating a much needed bicycle connection between the campground and the historic area. Clear signage will be posted along the trail highlighting the fact that Newcomb Lake Road is closed to snowmobiles. The campground and CSHA UMPs will need to be amended or revised to accommodate the development of this trail. See Appendix J for more detail on this proposal.
- Initiate an assessment to determine how and whether the snowmobile trail outlined above could accommodate equestrian use in the non-winter months and how it may impact the Camp Santanoni Historic Area and the Lake Harris Campground.
- Close Linsey Marsh trail to snowmobiles. DEC Policy ONR-2 (Snowmobile Trails - Forest Preserve), states, in part: "When a snowmobile trail is no longer used or receives only minimal use, such trail shall be closed;" and "[d]ead-end snowmobile trails shall not be established and any such trails now in existence shall be closed unless such trail dead-ends at a specific facility or feature used by the public in the winter season." The Linsey Marsh trail is such a trail. It is isolated, short (two miles long), and dead-ends at the marsh. It has been used as a snowmobile trail over the years, and has appeared in DEC publications as such as recently as 1989. However, current signage at the trailhead is unclear. It is labeled simply as a trail, with no specification as to whether snowmobiles are allowed. Additionally, precise use data for this trail is not available, as there is no register, but observations by the local Forest Ranger indicate that the trail has seen very little snowmobile use over the last ten years and no snowmobile use in the last three years. Therefore, the trail will be closed to snowmobile use and clearly signed to that effect.
- Support the development of the North Country National Scenic Trail if eventually routed through VMWF. For a more in-depth discussion, see Appendix J.
- Investigate and consider additional trail construction projects in preparation for the next revision of this UMP, including a family loop trail at the 28N access point to VMWF in Newcomb and a foot/bicycle/ski trail connecting the Lake Harris Campground with the Santanoni Great Camp complex. Such a trail may also require revisions to the Santanoni and Lake Harris Campground UMP's. See Appendix J for more detail.
- Post "Wild Forest" signs at the points where the Schroon Lake snowmobile trails enter State Land. Add DEC snowmobile markers to these sections of trail, as well.
- Formally adopt the existing Camp Santanoni - Lake Harris Campground foot trail. This trail was established in the 1980's without benefit of formal approval through the UMP process.
- Execute work project on the Stony Pond snowmobile trail between 28N and Stony Pond as outlined in Appendix J.

2. Trailheads

Present Conditions:
Maintenance of existing trailheads consists of repairing vandalized structures, picking up litter and occasionally grading or snow plowing. At a handful of trailheads, parking areas are improperly delineated and resource degradation has resulted. A parking area is located at Oliver Pond approximately 200 feet from Hoffman Road. Since the existing parking area can only accommodate two cars, additional cars are often parked randomly among the trees to the north of the parking area. Over the years, the roots and stems of mature trees north of the parking area have suffered from direct mechanical damage and soil compaction caused by vehicles. A parking area is located at Muller Pond and is accessed from Hoffman Road. A dirt track continues past the parking lot to the northeastern end of the pond near its outlet. This way has been used by motor vehicle over the years but is rutted, uneven, and unsuited for motorized use. The boles and roots of surrounding trees have been damaged by vehicle traffic navigating the narrow passage.

Collection of public use data has been spotty for several trailheads, including the Boreas River loop trail - due to improper placement of the register - and the Hewitt Pond foot trail. No public use data is collected for those trails without registers, including the Cheney Pond and Rankin Pond trails. There is an obvious need for the Department to get a better handle on public use of VMWF.

Objectives:
- To upgrade and improve existing parking areas to reflect that they are gateways to public lands.
- To provide appropriate and relevant information for visitors.
- To provide a safe area in which visitors feel comfortable parking their vehicles.
- To reduce litter and vandalism.

Management Actions:
- Upgrade the existing parking area on the Blue Ridge Road for the Vanderwhacker Pond herdpath. There is currently an informal parking spot with room for one vehicle. This will be expanded to provide space for 5 vehicles and should be plowed in winter. The parking area will also serve to provide parking for users of the nearby Roosevelt Truck trail. Expansion of this parking area will include cutting of trees, which will be tallied before construction begins. The proposed parking area will be leveled and covered with crushed stone. Proper drainage structures will be installed so that drainage is not impaired. Signage will be placed along the road, 1000 feet on either side of the parking lot to alert drivers of the approaching trailhead. An individual project plan will site the lot and detail any tree cutting that may be required in compliance with current policy.
- Construct a new 3-4 car parking area for the proposed trail to Moxham Mountain. The parking area will be adjacent to the trailhead on Fourteenth Road and will be constructed as a “pull-off” using the north shoulder of Fourteenth Road and additional fill material, if necessary. The lot will be located as close to the proposed trailhead as possible, taking advantage of the widest point of the existing shoulder. The parking lot will not be plowed, as Fourteenth Road itself is not plowed up to this point. Since the pull-off will be located mainly within the Town Road right-of-way, the Department will consult with the Town prior to construction. An individual project plan will site the lot and detail any tree cutting that may be required in compliance with current policy.
- Construct a new 4 car parking area on the east side of Barton Mines Road to serve the west end of the Raymond Brook nordic ski trail. There are two possibilities for locating a parking lot for this end of the trail. One option is to use the shoulder of the road to create a “pull-off” type lot. However, this will not be the safest option when snowbanks will effectively narrow the width of

the road in winter. The preferred option is to locate a lot that is separate from the road on higher, level ground just to the south of the intersection of the ski trail and the road. It will be necessary to cut and remove trees, as no clearing exists. The parking lot will be surfaced with crushed stone and the perimeter will be clearly delineated. An individual project plan will site the lot and detail any tree cutting that may be required in compliance with current policy.

- Designate an existing clearing adjacent to Route 28 just north of the hamlet of North Creek for parking and upgrade accordingly. The eventual aim is to connect the proposed Raymond Brook nordic ski trail with the existing ski trails of Little Gore, taking advantage of the existing parking area there. However, until an agreement with the neighboring owner can be reached, this clearing located on state land can be used. The clearing will require some work before it can be used as a parking area, including: grading the short driveway from the highway; covering it with crushed stone; and installing a drainage ditch on the uphill side. The clearing itself will be brushed and graded to provide space for 4 cars. If the ski trail can be connected to Little Gore, there will be no need to plow the lot. An individual project plan will site the lot and detail any tree cutting that may be required in compliance with current policy.
- Install trailhead registers on trails to Vanderwhacker Pond, Raymond Brook, Wolf Pond, Lester Flow, Rankin Pond, Sherman Ponds, and Moxham Mountain. Registers will be located at least 150 feet from parking areas to minimize losses of public use data due to vandalism. Install signage at the above trailheads providing destination mileages, except at Rankin Pond, where such signage already exists.
- Construct a canoe launch and small parking area at Balfour Lake as described in Appendix J.
- Place boulders immediately to the north of the small parking area at Oliver Pond in order to prohibit vehicles from damaging trees and causing soil compaction. Also place barriers to prohibit the launching of trailered boats. (Pursuant to NYCRR §196.5(a)(3), the operation of mechanically propelled vessels is prohibited on Oliver Pond). Three spaces will be created south of the fireplaces to make up for lost parking. This will involve the cutting of trees and removal of their stumps. An individual project plan will site the lot and detail any tree cutting that may be required in compliance with current policy.
- Place fill in low spot in access to Muller Pond parking lot. Motorized vehicles will be prohibited from traveling beyond the parking lot through signage and construction of an earthen berm at this location. Travel by foot will be encouraged and the path to the pond's edge will be hardened so that it is accessible to people with disabilities.
- Install boulders at Cheney Pond to prohibit the launching of trailered boats. APA staff have reported witnessing the launching of trailered boats at this site, a use which is not permitted. The APSLMP prohibits the state from providing "boat launching sites" (see Glossary on pg 275) on state lands in the Adirondack Park on lakes smaller than 1,000 acres. Cheney Pond is roughly 60 acres in area.
- The Department will continue to monitor Oliver, Muller, and Cheney Ponds and, in consultation with APA, will implement further mitigation efforts as necessary.
- Improve timely plowing of Cheney Pond trailhead parking area.
- Remove the two fireplaces at the west end of Oliver Pond. They are overly deteriorated and are not being used; there is no safe parking for this area; and the two fireplaces at the east end of the pond are sufficient.

3. Campsites

Present Conditions:

The area has a diverse mix of camping options available to visitors. There are designated interior camping facilities at Stony Pond, Cheney Pond, 29th Pond, and Newcomb Lake. There are also many

roadside locations used seasonally by hunters and during the summer by others along the Northwoods Club Road, the Moose Pond Road, State Route 28N and at other locations. There is generally an increase in camping in VMWF during the beginning of the regular big game season.

Objectives:

- To provide a diverse range of camping opportunities at locations that are desirable by the public and are consistent with the protection of natural resources.
- To monitor and quantify current levels of camping use accurately.
- To assure that campsite and lean-to locations comply with Master Plan guidelines.

Management Actions:

- Develop LAC indicators and standards for extent of soil erosion at campsites.
- Develop LAC indicators and standards for condition of vegetation in camping areas
- Construct one accessible lean-to each on Wolf Pond and Cheney Pond and maintain register journals. See Appendix J for a more detailed discussion.
- Install accessible privies at Cheney Pond and Wolf Pond to coincide with lean-to construction, utilizing the proposed ADAAG.
- Select two of the roadside sites along the Northwoods Club Road near to where it crosses the Boreas River, formally assess the sites for access by persons with disabilities, and develop the sites to appropriate ADAAG for camping. An informational sign at each site should indicate that, based on the honor system, if the site is left unoccupied after a pre-determined time (e.g. 6pm), the site may be used by persons without disabilities.
- Close the user-created campsite near the outlet of Muller Pond. The site is too close to the pond. Assess the area around the pond's outlet for access by persons with disabilities and develop a site to appropriate ADAAG for camping. An informational sign should indicate that, based on the honor system, if the site is left unoccupied after a pre-determined time (e.g. 6pm), the site may be used by persons without disabilities.
- Designate two additional primitive tent sites on the east side of Muller Pond, south of the outlet.
- Close 2 of the 5 tent sites located near the Boreas River at 28N, in accordance with the separation distance guidelines of the APSLMP. The remaining small grouping of 3 primitive tent sites can accommodate a maximum of 20 people under group camping conditions, when necessary. This area is particularly hardened and thus well-suited to withstanding the potential effects of group camping.
- Close 3 of the 6 tent sites located along the Northwoods Club Road near the Boreas River, in accordance with the separation distance guidelines of the APSLMP. The remaining small grouping of 3 primitive tent sites can accommodate a maximum of 20 people under group camping conditions, when necessary.
- Close the one primitive tent site on VMWF at Huntley Pond. It does not conform to the separation distance guidelines of the APSLMP, due to the presence of nearby primitive campsites within the Hudson Gorge Primitive Area.
- Close 1 of the 2 primitive tent sites located at Oliver Pond, in accordance with the separation distance guidelines of the APSLMP.
- Close 1 of the 2 primitive tent sites located at the Boreas River and Blue Ridge Road, in accordance with the separation distance guidelines of the APSLMP.
- Close 1 of the 4 tent sites located on Moose Pond Road near Vanderwhacker Brook, in accordance with the separation distance guidelines of the APSLMP. The remaining small grouping of 3 primitive tent sites can accommodate a maximum of 20 people under group camping conditions, when necessary.
- Signage identifying such groupings will be developed and posted at appropriate locations. The

Department will continue to monitor use at these groupings and take appropriate action to ensure compliance with the APSLMP.

- All closed campsites will be restored to a natural condition. Fire rings/places, tree stumps and other evidence of past use will be removed.
- Designate the campsite at Sunnyview Farm, that has traditionally been used during regular big game season.
- Conduct a baseline inventory of all established campsites.
- All primitive tent sites within the unit will be monitored for damage due to overuse. Where ease of access by motc vehicle appears to be contributing to overuse of primitive tent sites the least intrusive measures, such as education and/or site remediation, will be implemented. If these are not successful in reducing user impacts, more stringent measures will be considered and appropriate management actions taken. However, consideration will be given to maintaining motor vehicle access to tent sites that provide recreational opportunities for people with mobility impairments.
- At primitive tent sites, existing fireplaces that have deteriorated to the point that they need to be substantially rebuilt will be removed and replaced with fire rings.
- DEC will conduct an inventory to determine the extent to which roadside camping exists in Wild Forest areas park-wide. Further, the Department will consult with APA to establish design criteria for campsites accessible along roads.

4. <u>All Terrain Bicycle (ATB) Trails</u>

Present Conditions:
All terrain bicycles (a.k.a. mountain bikes) are currently restricted from the Lake Harris Campground - Santanoni Gatehouse trail. All other trails in the VMWF are currently considered open to ATB's. The APSLMP guidelines for Wild Forest allow for the use of ATB's "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." Therefore, it will be decided in this UMP, which truck trails, foot trails, and snowmobile trails (there are currently no designated horse trails in the VMWF) will remain open to ATB use.

Data on current use of ATB's on VMWF roads and trails are unavailable. Many of the trails in VMWF, with a few exceptions, are generally too rough or steep for all but the most advanced riders. This fact, coupled with DEC staff observation, suggests that ATB use of VMWF roads and trails is low. Not surprisingly, corresponding impacts from ATB use are low, as well. However, the Stony Pond, Vanderwhacker, and Cheney Pond - Irishtown snowmobile trails, as well as a few local dirt roads, do appear in a handful of guidebooks on mountain biking in the Adirondacks (see Bibliography). The trail to Stony Pond, as well as some dirt roads in the area (including the Roosevelt truck trail, Moose Pond Road, Northwoods Club Road, etc.), have been rated as beginner or easy intermediate, but these guidebooks generally rate the Cheney Pond - Irishtown trail as expert only, due to rough, rocky, and root-ridden conditions. The Vanderwhacker snowmobile trail appears in at least one publication (and is unrated), yet it is generally too wet and too rough to be suitable for ATB use. Some trails in the area are wholly inappropriate for ATB use due to excessive grade (e.g., the Vanderwhacker Mountain tower trail) and are likely never used by ATB'ers. Other trails in the unit may or may not be inappropriate for ATB use and will be discussed under "Management Actions" below. To determine whether particular trails are suitable for continued ATB use, trail characteristics such as grade, drainage, conflicts with other recreational activities, private land crossings, level of difficulty, and connectivity to other ATB-suitable trails must be considered.

Objectives:

- To comply with State Land Master Plan guidelines concerning use of ATB's in Wild Forest.
- To provide appropriate ATB opportunities that are desirable by the public and are consistent with the protection of natural resources.

Management Actions:

- VMWF roads legally open to the public will remain open to ATB's.
- Designate the Roosevelt truck trail as open to ATB's. As a road maintained for administrative motor vehicle traffic, this truck trail is suitable for ATB use.
- Designate the Linsey Marsh trail as open to ATB use.
- Designate the Stony Pond and Cheney Pond - Irishtown, snowmobile trails as open to ATB use.
- Design the proposed new Lake Harris Campground - Santanoni Gatehouse snowmobile trail according to guidelines and standards listed in Appendix O, so that it will be suitable for ATB use.
- Post the following foot trails as closed to ATB use: Vanderwhacker Mountain tower trail, Rankin Pond trail, and Hewitt Pond trail. Significant portions of these trails are too steep and rough to support ATB use and currently see little, if any, ATB use.
- The Center Pond trail will be closed to ATB use, by virtue of the fact that it is accessed via the Hewitt Pond foot trail (closed above). Furthermore, this trail is quite short (~0.2 miles) and currently receives no known ATB use.
- Post the north end of the Hoffman Notch trail as closed to ATB use since it connects to an area that, pursuant to the APSLMP is already off-limits to ATB use - the Hoffman Notch Wilderness.
- The Boreas River Loop trail will be closed to ATB use. The narrow, twisting, and rough nature of this relatively short trail makes it unsuited to ATB use. As a result, this trail likely sees little, if any, current ATB use.
- The Lake Harris Campground - Santanoni Gatehouse trail will remain closed to ATB use due to the potential for user conflict.
- Post the Vanderwhacker snowmobile trail as closed to ATB use due to the private land crossing at its north end and to the many wetlands crossings along its length. This is not a trail anyone would bike twice, and currently sees little, if any, ATB use.
- ATB use of the VMWF portions of the Horseshoe Pond bypass snowmobile trail, the Charley Hollow Road snowmobile trail, and the northwest branch of Thilo Road snowmobile trail will be allowed.[2]
- Post the VMWF portions of the Roaring Brook, Rabbit Pond and Oak Ridge trails as closed to ATB use since the portions of these trails on Little Gore and on Gore Mountain Ski Area are not currently open to ATB use.

D. Historic Resources

1. Ranger Cabin and Garage

Present Conditions:

The old Ranger cabin and associated garage, located alongside Route 28N near the Minerva-Newcomb town line, have been used over the years by DEC for different administrative purposes. They are not manned, but instead are currently used for equipment storage. They are nearing the end of their

[2]This is a change from the May 2004 Draft UMP for Public Review. A representative of the Town of Schroon's mountain biking initiative has assured the Department that public ATB use is allowed on the private land portions of these trails.

usefulness in the management of the unit and there is an obvious financial burden in maintaining them. However, these buildings are among the few remaining examples in the Adirondack Park of a standard design used by the Conservation Department in the 20's and 30's, and are thought to have been built by the Civilian Conservation Corps (CCC).

Existing state laws may be somewhat at odds with each other on how to deal with the buildings. The APSLMP discourages the retention of manned ranger stations in Wild Forest, though these buildings are not manned and do not function as an APSLMP-defined "Ranger Cabin." The APSLMP also allows for the "maintenance and rehabilitation... to the extent essential to the administration and/or protection of state lands or to reasonable public use thereof" of "storage sheds and similar rustic buildings for use of administrative personnel", though it would be difficult to argue that these buildings could be maintained per that guideline. The APSLMP also contains so-called "Special Management Guidelines" that may apply to these buildings as "historic buildings, structures, or sites not part of a designated historic area." These guidelines dictate that the management of such lands will not be "less restrictive than that of the major land classification in which they lie." They also state, "[s]pecial interest areas will receive appropriate publicity and particular attention will be given to interpretive signing." They further state that, "where over use or destruction of unique and fragile resources is a threat, special measures will be taken to protect their integrity...." Furthermore, if the buildings and/or site are eligible to be listed on the State Register of Historic Places, and thus historically significant, the Department must also adhere to §14.09 of the Parks, Recreation, and Historic Preservation Law (SHPA). This law states, in part, that DEC "shall fully explore all feasible and prudent alternatives and give due consideration to feasible and prudent plans which avoid or mitigate adverse impacts on such property." According to a recent evaluation by the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), the buildings meet eligibility criteria for listing on the State Register of Historic Places, and thus are historically significant.

Seven alternative actions are under consideration, and are outlined below.

Abandonment Alternative - Cease the current low level of DEC maintenance, which has included hazard tree removal, and minor work to keep animals and weather out of the buildings. This strategy will lead to the eventual collapse and loss of the buildings. In this state, they may become an attractive nuisance, due to their proximity to a major thoroughfare; making this an irresponsible alternative. Furthermore, this alternative would be considered an adverse impact under 9 NYCRR 428.7(a)(4), which reads, in part, "In determining whether an undertaking will have an adverse impact on eligible or registered property, the commissioner [of OPRHP] shall consider whether the undertaking is likely to cause... neglect of the property resulting in its deterioration or destruction."

Maintenance Alternative - Preserve the buildings without providing interpretation. Implementation of this alternative will ensure the preservation of the buildings and their historical significance, and may serve to keep financial costs down through the absence of interpretive, monitoring, and enforcement costs associated with increased visitation. The financial cost of implementing this alternative has not yet been determined. An initial estimate places the financial cost somewhere between $5,000 and $10,000 per building, based on replacement of the buildings' cedar shake roofs.

Maintenance and Interpretation Alternative A - Preserve the buildings and provide limited interpretation. This might include installation of interpretive signage/panels describing the history of the buildings and who used them and the nearby Forest Preserve, as well as their historical context. This would be achieved through a limited number of outdoor panels without providing public access to the buildings' interiors. The cost of implementing this alternative would include the cost of the Maintenance Alternative, plus the cost of developing, installing, and maintaining outdoor interpretive signage.

Maintenance and Interpretation Alternative B - Preserve the buildings, open them to the public, and provide indoor interpretation. The obvious disadvantage to this alternative is the financial cost - not only of maintenance, but of interpretation, monitoring, and enforcement - which would be prohibitive. Another disadvantage, especially of indoor interpretation, is that the buildings alone may not be sufficient to serve as a destination. The number of people likely to visit such a site may not justify the expense of such improvement and interpretation, especially without a volunteer organization willing to "adopt" the project and establish some appropriate, inventive, consequential and lasting use.

All maintenance alternatives will require that the buildings be maintained in a manner that does not disturb the existing wild forest character of the state land. For any of the maintenance alternatives to be implemented, a full engineering inspection must be performed to determine necessary repairs and approximate financial costs.

Demolition Alternative - Raze the buildings and dispose of the materials in an appropriate manner. This alternative demands a one-time financial cost for destruction and disposal, but no future monetary costs. Although unlikely, one or both of the buildings could be surplussed, potentially reducing the financial cost to the State of implementing this alternative.

Relocation Alternative - Disassemble the buildings and re-build them at another, non-Forest Preserve location. A local government would move the buildings from state land and use them for tourism information and/or interpretation. In this way, the buildings would be preserved and used in a worthwhile way. There has been some interest by the Town of Newcomb to move the buildings to a site adjacent to Newcomb Town Hall and use them for tourism information and education. However, it was determined that the financial cost of relocation was such that the Town could not afford to pursue it. Another disadvantage to this alternative is that relocation will likely make the buildings ineligible for listing on the State Register of Historic Places.

No Action Alternative - Continue the current low level of maintenance without considering what to do once that is no longer sufficient to keep the buildings intact.

The financial costs associated with the above alternatives have not yet been determined, but two of the alternatives can be ruled out immediately, nonetheless. The No Action alternative is irresponsible, because the time may soon come when the current low level of maintenance will no longer be enough to keep the buildings intact. Eventually, they will require major rehabilitative work, and a decision regarding their future should be made sooner rather than later. The Abandonment Alternative is unacceptable because it creates an attractive nuisance and would be considered an adverse impact under 9 NYCRR 428.7(a)(4).

The Demolition Alternative is acceptable, but since the buildings have been found to have historical significance, the Department has a heightened responsibility to preserve them and will have to consult with OPRHP to determine mitigation, which might include detailed documentation prior to demolition. The Maintenance Alternative is also acceptable, but the monetary cost of extensive maintenance may be high. Maintenance and Interpretation Alternative A is considered slightly preferable to the Maintenance Alternative, because limited outdoor interpretation could potentially add little cost to the overall financial cost of maintenance, yet this alternative could perform an important role not only in preserving, but in interpreting a State historic resource. The financial costs of interpretation associated with Maintenance and Interpretation Alternative B are too great. Providing indoor interpretation will be too great a financial drain for a site of this scale and location. The Relocation Alternative is acceptable and may prove to be less costly to the state in the long run, if there is an interest by a local organization or government.

However, the financial cost of relocation by a local organization or government may be prohibitive. Furthermore, relocation will automatically render the buildings ineligible for listing on the state register.

Objectives:

- To protect the Wild Forest character and natural resource quality of the Adirondack Park, through adherence to the guidelines of the State Land Master Plan and related law.
- To protect the State's historic resources through adherence to the State Historic Preservation Act.

Management Actions:

- Since OPRHP has found the buildings to be eligible for listing on the State Register of Historic Places, the Department has a heightened stewardship responsibility as mandated by the State Historic Preservation Act. In year one of the UMP, DEC Operations will conduct inspections of the buildings to determine the financial costs of implementing the Maintenance Alternative, Maintenance and Interpretation Alternative A, the Demolition Alternative, and the Relocation Alternative. In the event that the initial costs of the preferred alternatives are comparable, the Department will pursue Maintenance and Interpretation Alternative A. If the initial or annual costs of this alternative are too great compared to the cost of relocation or demolition, the Department will pursue the Relocation Alternative. DEC will work with the Town of Newcomb or another municipal government to relocate the buildings to the Newcomb Town Hall, or another appropriate site. The Department will support attempts to obtain funding for the job. DEC will also work with other organizations interested in partnering and developing plans for use following relocation and restoration. If after four years from commencing with the Relocation Alternative, sufficient funding and an appropriate site have not been identified, the Department will pursue the Demolition Alternative. In comparing costs - both historical and environmental - of the above alternatives, the Department will consult with the APA and the OPRHP.

2. Vanderwhacker Mountain Fire Tower

Present Conditions:

The APSLMP states, "fire towers and observer cabins will be allowed [in Wild Forest areas]... and their maintenance [and] rehabilitation... permitted. The educational and informational aspects of certain fire towers [and observer cabins] should be encouraged."

Prior to 2003, the Vanderwhacker Mountain fire tower had not received much maintenance or other attention since its abandonment in the 1980's. There is a renewed interest in rehabilitating fire towers in the Adirondacks and elsewhere. In 2001, a "Friends of Vanderwhacker Mountain Fire Tower" group (FoV) was formed in the interest of rehabilitating the tower so it could be open to the public for its valuable scenic and educational character. The group has adopted the following mission statement: "An organization of people dedicated to restoring, preserving, and promoting the stewardship of the Vanderwhacker Fire Tower, observer's cabins, and the public lands adjacent to it." In 2002, the group entered into an Adopt-a-Natural-Resource Stewardship Agreement (see ECL §9-0113) with the Department which allows them to perform specific tasks relevant to rehabilitating the tower and enhancing its recreational and educational potential. In 2003 and 2004, Department staff, Student Conservation Association (SCA) volunteers and FoV volunteers completed much-needed maintenance of the tower and associated trail. The tower was painted, two of its concrete footings repaired, the cab floor replaced, and many new waterbars were installed along the trail to the summit. Future maintenance will focus on additional trail work, as well as repair/replacement of the tower's windows.

Additionally, the summit of the mountain is specifically listed in the APSLMP as a Scenic Special Management Area [emphasis added]. Were the tower not present, the 360-degree, spectacularly scenic view, would be greatly diminished - by roughly 330 degrees. Furthermore, the APSLMP (pg 91) specifically recognizes this view - "Vanderwhacker Mountain... provides perhaps the best view of the High Peaks from the south in the Park." Again, if the tower were not present, this statement could not be made.

Except for regular blowdown removal, the trail to the tower has seen limited maintenance over the years. The trail was likely designed to withstand very light use by the observers and occasional hikers, not the hiking traffic it currently receives nor is likely to receive in the future. As a result, there are several sections where the trail is quite steep. In 2003 and 2004, a number of waterbars were installed on the lower and middle portions of the trail by SCA crews. In order to protect the trail from further soil erosion and to prepare for increased use, further trail work, including a re-route is recommended and will be described below.

Moose Pond Road, which currently receives little DEC maintenance, leads to the Vanderwhacker Mountain Fire Tower trailhead and eventually to a private hunting club. It is considered a qualified abandoned town road by the Town of Minerva (since 1927) and therefore receives no Town maintenance. The owners of the inholding have rights of access and have traditionally maintained the road. However, maintenance of the road is also in the interest of the People of the State of New York as it provides the best access to the fire tower and its breathtaking views. (See page 52 for additional information).

Objectives:

- To recognize the historic and cultural significance of the Vanderwhacker Mountain fire tower and associated facilities, and to effect its restoration, thereby allowing the public to access and appreciate it in a safe manner.

Management Actions:

- Inspect the tower for structural integrity and develop a list of repair work necessary before it can be opened to the public. Repair work may include replacing missing window panes and guy wires.
- The volunteer group will likely raise money and public interest, and work with DEC Forestry, Operations, and Forest Ranger staff to make repairs to the tower and associated facilities (observer's cabins, foot trail, etc.), such as minor carpentry work, window replacement, and trail maintenance. The group may also develop interpretive signing to be installed in and around the tower. Such signing may include installation of numbered signs at intervals along the tower trail and creation of a corresponding educational brochure, in order to form an interpretive trail.
- Cooperate with the "Friends" group to add the Vanderwhacker Mountain tower to the multiple property nomination for listing in the State/National Register of Historic Places, with other Adirondack and Catskill fire towers. All work related to the rehabilitation of the tower shall be reviewed and evaluated in accordance with the New York State Historic Preservation Act of 1980.
- Monitor the Vanderwhacker Mountain Fire Tower, trail, and associated facilities for signs of overuse. Remedies for the impacts of overuse will include installation of additional water bars, stepping stones, and/or dry tread, and may also include temporary/seasonal closing of facilities and development of a loop trail to the tower using a portion of the Old Military Road. The Department and the Moose Pond Club may also work together to discourage the public from driving the Moose Pond Road during mud season, in order to protect the tower trail, as well as the

road, from negative impacts due to foot and vehicle traffic during mud season.

- Support the establishment of a Tower Steward position, if funding permits, to provide interpretive programs at the renovated fire tower during peak periods of use.
- Work out an appropriate and amenable arrangement with the owners of the Moose Pond Club inholding, to determine a way to share future maintenance responsibilities of Moose Pond Road.
- Change the road sign identifying Moose Pond Road as a "Private Way" in order to reflect the public nature of that road.
- Construct a re-route of the tower trail (approximately 500 ft north of the observers' cabins) for a distance of approximately 500 feet. The current section of trail goes straight up the fall line. The re-route will follow a gentler grade by traversing sideslope and incorporating switchbacks.
- Continue the recent maintenance project initiated in 2003 through the installation of additional water diversion structures to the middle and upper portions of the trail and the installation of stepping stones (approximately 6 or 7) in a wet section of trail southeast of the intersection of the tower trail and snowmobile trail.

E. Public Use and Access

1. Public Use

Present Conditions:
Accurate figures for the public's use of the unit are not available. Incomplete trail register data exists, and some trends can be noted on public use. Primarily, use is concentrated seasonally at a few locations. The public's use of the area, as with most of the Forest Preserve, is free and relatively unregulated. Regulations do exist for certain activities such as camping group size and length of stay, and the DEC requires the issuance of a Temporary Revocable Permit for organized activities mainly involving competitive events or large gatherings.

Objectives:

- To enforce existing laws, rules, regulations and policies.
- To permit and encourage recreational use levels consistent with the protection of the unit's natural resources and character.
- To provide users with information on the unit and its facilities, and the appropriate use of the area.
- To identify and develop methods to monitor public use accurately.
- To minimize user conflicts by providing appropriate information to visitors.

Management Actions:

- Develop a Vanderwhacker Mountain Wild Forest brochure that details the unit's history, recreational opportunities, and use guidelines. The brochure will include a unit map showing present boundaries of VMWF parcels and existing trails, parking lots, lean-tos, or other important public facilities. Such map will be updated periodically as facilities are created or removed and as funds are made available. The DEC website may also be updated to include a VMWF page, such as exists for other state land units.
- Develop LAC indicators and standards for managing conflicts between different user groups.
- Supplement trail register data with site sampling techniques (trail timers, head counts, infrared counters, surveys, etc.) to determine actual public use numbers.
- Develop a system to monitor the public use of the area. Establish and maintain register journals at popular lean-tos.

- Employ the "minimum tool" necessary to regulate public use, using indirect methods whenever possible (such as limiting parking) and direct methods such as regulations when necessary.
- Install registers at unit trailheads as outlined in "Trailheads" above.

2. Access for Persons with Disabilities

Present Conditions:
To date, no universally accessible structures or improvements have been designed or constructed in this unit. In 1997, DEC adopted policy CP-3, Motor Vehicle Access to State Lands under Jurisdiction of the Department of Environmental Conservation for People with Disabilities, that establishes guidelines for issuing Temporary Revocable Permits allowing qualified people with disabilities to use motor vehicles to access designated routes on certain state lands. According to the policy as it applies to the Forest Preserve, on lands classified as "Wild Forest" and "Intensive Use," people with qualifying disabilities may obtain permits to use motor vehicles in certain specified locations which are not open to motor vehicle use by the public. A recent settlement agreement reached in U.S. District Court [Galusha et al v. NYSDEC, et al, Consent Decree, U.S. District Court of NY, 7/5/01] requires the State to allow disabled persons, by permit, to use motor vehicles on certain specified roads that are closed to general public motor vehicle use. No specific locations for such use were identified in the Vanderwhacker Mountain Wild Forest. Nonetheless, appropriate access development opportunities for persons with disabilities do exist within the unit and more will be identified through the management actions described below.

Objectives:
- To ensure Department compliance with the Americans with Disabilities Act - Title II, the proposed and adopted ADAAG, and Section 504 of the Rehabilitation Act by improving access and creating recreational opportunities for people with disabilities.

Management Actions:
- Conduct a formal inventory of all facilities within the unit to assess the level of accessibility provided to people with disabilities. This formal inventory will examine each facility (such as a trail, lean-to, picnic area) in terms of the standards established by ADAAG, either adopted or proposed. To ensure that new facilities and applicable alterations to existing facilities are compliant, this activity will be scheduled and conducted during the first year of this five year plan.
- Involve a knowledgeable representative from the community of people with disabilities in the facilities inventory and in all subsequent projects and proposals.
- Cooperate and serve a leadership role in working with local businesses and others in expanding access opportunities for all individuals, consistent with the protection of the area's natural resources.
- Include information on the level of difficulty visitors can expect to encounter when accessing the various facilities of the unit. Include this information at all appropriate trailheads, on the Department's Website and in the area brochure proposed above.
- Assess the recently purchased Balfour Lake property and develop an ADAAG compliant canoe launch, if location is suitable.
- Assess the canoe launches at Cheney Pond and Oliver Pond for access by persons with disabilities, and upgrade to appropriate ADAAG, if possible.
- Maintain the 0.7 mile long Cheney Pond access road, including filling potholes and brushing out the immediate right-of-way, where necessary. Maintenance of this road is important, because Cheney Pond is one of few VMWF waterbodies that could be made accessible by motor vehicles to people with disabilities.
- Assess the campsites on Northwoods Club Road and develop two to appropriate ADAAG for camping, as discussed in "Campsites" above.

- Open 2 miles of the Roosevelt truck trail (beginning at 28N) to motor vehicles by persons with disabilities only (CP-3 permit holders[3]), construct 2 primitive tent sites to ADAAG along the trail, and enlarge the small parking area at the south end of the truck trail. See Appendix J for more details.
- As required by the Consent Decree, construct a horse mounting platform in the vicinity of the Ash House at Camp Santanoni, in consultation with APA.

ALTERNATIVES

No Action or Need for a Plan

From a legal perspective, the No Action alternative is not an option. Section 816 of the Executive Law (Adirondack Park Agency Act) requires the Department of Environmental Conservation to develop, in consultation with the Adirondack Park Agency (APA), individual unit management plans (UMPs) for each unit under its jurisdiction classified in the Adirondack Park State Land Master Plan (APSLMP). In addition a UMP serves as a mechanism for the Department to study and identify potential areas for providing access to the Forest Preserve for persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA). The UMP also serves as an administrative vehicle for the identification and removal of nonconforming structures as required by the APSLMP.

From an administrative perspective, the No Action alternative is not an option, because the UMP provides for guidance necessary for staff to manage the lands of the unit in a manner that is most protective of the environment while at the same time providing the most enjoyable outdoor recreation opportunities for the public. Without the UMP, the sensitive environmental resources of the unit could be impacted negatively. It is highly likely that public enjoyment of such impacted resources would decrease. Management of the lands of this Unit via a UMP allows the Department to manage use of the lands in order to improve public use and enjoyment of the area, avoid user conflicts and prevent over-use of the resource (e.g., through trail designations, access restrictions, placement of campsites and lean-to in relation to a sensitive resource, etc.).

[3]Pursuant to Commissioner's Policy #3 - Motor Vehicle Access to State Lands under the Jurisdiction of DEC for People with Disabilities

SECTION V: SPECIAL AREA MANAGEMENT PLANS

Sand Pond Mountain Silvicultural Parcel and North River Mountains Silvicultural Parcels Sub-Plan to the Vanderwhacker Mountain Wild Forest Unit Management Plan

A. Area Description

Both areas are lands gifted by Finch, Pruyn & Company, Inc. to the state in 1962 for "the purposes of silvicultural research and experimentation in the science of forestry, including purposes incidental thereto..." pursuant to ECL §9-0107(2). They are located in the eastern central portion of the Adirondack Park, specifically in Essex County in the Towns of Newcomb and North Hudson. The Sand Pond Mountain parcel (2,426 acres) is to the north of and directly adjacent to the Hoffman Notch Wilderness Area. The North River Mountains parcels (3,684 acres) surround approximately 2,150 acres of VMWF Forest Preserve lands on the spine of the North River Mountains and are adjacent to the High Peaks Wilderness Area, near the Newcomb/North Hudson Town line. Both areas are located in Totten and Crossfield's Purchase, Townships and great lots are listed below:

2,426 acre Sand Pond Mountain parcel:

Township 44

- Lot 1
- portions of Lots 2, 7, and 8

3,684 acre North River Mountains parcels:

Township 45

- Lots 15 and 29
- portions of Lots 30, 31, 41, and 42

Township 46

- Lots 25, 26, 46, and 51
- portions of Lots 23, 24, 45, 49, 50, 52, 69, 70, 71, and 72

The Sand Pond Mountain Silvicultural Parcel has no frontage along a public road. The only public access is via the Hoffman Notch trail, which runs north-south through the middle of the parcel for approximately 2 miles. Access to the trail from the south is via Loch Muller Road and through the Hoffman Notch Wilderness Area. Access to the trail from the north is via the Blue Ridge Road and by easement across lands owned by Finch, Pruyn & Company, Inc. There is a parking area on the south end large enough for several vehicles, and a smaller parking area on the north end large enough for 1 or 2 vehicles only. There are no other DEC trails or facilities within the parcel. Since the Sand Pond Mountain parcel is directly adjacent to and connected via foot trail with the Hoffman Notch Wilderness area, and does not abut any other lands of the VMWF, it might be preferable to manage the Sand Pond Mountain parcel as a part of the HNWA rather than as a part of VMWF.

The North River Mountains Silvicultural Parcels have no road frontage and contain no DEC facilities. They are almost completely surrounded by private lands and are only accessible to the public via bushwhack from the High Peaks Wilderness Area. Additionally, not all VMWF lands in the North River Mountains are considered "silvicultural lands." In 1936, the state purchased approximately 2,150 acres in the mountain range consisting of mainly the higher elevations. This acreage was not received under ECL §9-0107(2) and is Forest Preserve.

B. History

In the 1950's and 1960's, Finch, Pruyn & Company, Inc. gifted land to the state in several locations under provisions of the Environmental Conservation Law (ECL) that allowed the state to accept gifted lands to be used for "*forestry purposes*." The original law made no mention as to what would happen if the gifted lands were inside the Adirondack Park. However, in 1960, a subsequent statute was passed (now ECL §9-0107(2)) that allowed the state to accept gifted lands in Forest Preserve counties "for use for the purposes of silvicultural research and experimentation in the science of forestry to the end that forest practices most beneficial to the economy of the state and to the health, welfare and comfort of the people of the state may be ascertained and demonstrated." The statute further states that such lands "shall not become a part of the Forest Preserve." Two of these locations would later be classified as Wild Forest and become a part of the VMWF; the Sand Pond Mountain Silvicultural Parcel and the North River Mountains Silvicultural Parcels. The area of these lands totals 6,110 acres.

Litigation concerning these gift lands was recently settled (Finch, Pruyn & Company, Inc. v. Erin Crotty, Supreme Court, County of Albany, Index No. 6370-01). In 2002, Finch, Pruyn & Company, Inc. initiated a lawsuit against the Department alleging that the DEC had neglected its responsibility to manage the properties for silvicultural research and experimentation in the science of forestry, and thus, the lands should revert back to Finch Pruyn. In regard to the lands gifted in 1962, which include both the Sand Pond Mountain parcel and the North River Mountains parcels, the court found that the Department did not mismanage these lands. The court held that the Department has the discretion to determine the management of these lands within the confines of ECL §9-0107. Moreover, the court held that even if the Department had violated conditions in the deeds, there is no language in the deeds that would indicate the properties should be returned to Finch Pruyn.

C. Terrain and Soils

The terrain and soils of both areas can be described as generally rough and steep, providing one probable reason as to why the areas were given to the State. The Sand Pond Mountain parcel has two major north-south ridges running through it, Washburn Ridge and Hornet Cobbles. Together they form the steep walls of the valley of Hoffman Notch Brook, which drains much of the parcel. In the extreme western corner of the parcel lies Sand Pond Mountain at 2,936 feet (895m). Elevation on the parcel ranges from about 1,230 feet (375m) along Hoffman Notch Brook to 3,054feet (931m) at a point along the north end of Washburn Ridge.

The North River Mountains "gift" lands consist of the middle elevations of the range, as the higher elevations, including Rist Mountain and Cheney Cobble were sold to the State in the 1930's. Much of the area is also quite steep and the elevation ranges from about 1,772 feet (540m) on the western edge of the parcel to around 3,100 feet (945m) in several places along the flanks of the range.

Soils in both areas are mainly of the Rawsonville, Mundal, Ricker, and Hogback series. Rawsonville series consists of moderately deep, well-drained soils formed in loamy glacial till. Mundal series consists of moderately well-drained soils, formed in compact loamy glacial till. Ricker series consists of very shallow and shallow, well-drained to excessively drained soils formed in thin organic deposits. Hogback series consist of shallow, well-drained soils, formed in loamy glacial till.

D. Vegetation

Plant life in both areas is generally similar to other areas of VMWF. Spruce-fir stands are common to the higher elevations. In the lower elevations, northern hardwood forests predominate. In addition, evidence of strong fires can still be seen in parts of the North River Mountains, which burned in the 1930's.

E. Fish and Wildlife.
Fish and wildlife information for the silvicultural parcels will be found in appropriate sections and appendices of the Vanderwhacker Mountain Wild Forest Unit Management Plan to which this sub-plan is appended.

F. Public Use
Public use of the North River Mountains area is unknown, but is likely extremely infrequent, due to the area's inaccessibility. Lessees on neighboring industrial and working forest lands may occasionally use the area for hunting, fishing, trapping, and other uses, but such information is unavailable.

Public use of the Sand Pond Mountain parcel includes hiking, nordic skiing, and hunting and is likely comparable to use of the adjacent area of Hoffman Notch Wilderness Area. Most use of the silvicultural parcel is concentrated to foot traffic along the Hoffman Notch trail, 2 miles of which run through this parcel.

G. Management Goals
There are no currently identified projects requiring silvicultural research. The Department proposes to study and investigate potential projects for silvicultural research and experimentation in the science of forestry that would be compatible with the other management objectives of these parcels and adjoining Forest Preserve parcels, to be addressed in future UMP revisions. Pending the resolution of the constitutional issue, the parcels will be managed in a manner consistent with Article XIV of the New York State Constitution and in conjunction with the rest of the Vanderwhacker Mountain Wild Forest.

Management Proposed[1]
No specific management activities are proposed. As for the portion of the Hoffman Notch trail through VMWF, no management beyond routine maintenance is proposed. Since the majority of the length of the trail is located within the Wilderness area, any management activities related to that trail should be addressed in the Hoffman Notch Wilderness Area Unit Management Plan and followed by revisions or amendments to the Vanderwhacker Mountain Wild Forest Unit Management Plan, if necessary.

[1]New development since the release of the VMWF draft UMP for Public Review: the North River Mountains and Sand Pond Mountain parcels are currently under consideration by the APA for reclassification as Wilderness and addition to the High Peaks Wilderness and Hoffman Notch Wilderness, respectively.

SECTION VI: SCHEDULE FOR IMPLEMENTATION

The following tables outline a schedule for implementation of the proposed management actions and their estimated costs. Accomplishments are contingent upon staffing levels and available funding. The estimated costs of implementing these projects is based on historical costs incurred by the Department for similar projects. Values for some projects are based on projected costs for service contracting. These cost estimates to not include capital expenditures for items such as equipment, nor do they include the value of program staff salaries.

Annual Maintenance and other Activities	Estimated Cost
Boundary line maintenance (204 miles) on a 7-year schedule	$11,500
Litter removal and annual maintenance of trails, pit privies, and signs	$10,000
Share cost of maintenance of Moose Pond Road with Moose Pond Club	$5,000
Continue removal of Japanese knotweed stand along Northwoods Club Road[1]	$750
Check fish barrier dam at Oliver Pond	**
Monitoring of impact on unit lands, waters, and facilities by Area Manager	50 person-days
Follow LAC steps to develop guidelines and standards to monitor environmental and sociological conditions	??
Monitor wildlife populations through analysis of harvest data. Inventory non-game, endangered, threatened, and special concern species as well as significant habitats	**
Survey ponds as required to monitor status of fishery resource and water chemistry	**
Stock fish in unit waters consistent with Bureau of Fisheries policies and Programmatic Environmental Impact Statement on Fish Species Management Activities of the Department of Environmental Conservation, Division of Fish and Wildlife	**
Maintain an active acquisition program pursuant to the Open Space Plan to acquire desirable parcels as availability and funding permit	**
Total Annual Costs	$27,250

** - normal program funding
? - Cost unknown, not part of normal program funding

[1]Efforts to eradicate this infestation are expected to take several successive years and will continue for as many years as are necessary

Year 1	Estimated Cost
Construct VIC - Santanoni trails	$3,300
Construct Gatehouse-Lake Harris Campground snowmobile/bicycle trail (including 1 bridge)	$9,600
Develop and print brochure	$5,000
Designate and construct snowmobile trail to facilitate access between hamlets of Minerva and Newcomb	$50,000 - $80,000
Conduct accessibility inventory	$15,000
Inspect Vanderwhacker Mountain fire tower and develop list of necessary repair work	2 person-days
Post "Wild Forest" signs at points where Schroon Lake snowmobile trails enter and leave VMWF. Add DEC snowmobile markers to VMWF trail sections.	$100
Remove old snowmobile trail markers from Linsey Marsh trail and post against snowmobile use.	$50
Install trail registers at Rankin Pond and Lester Flow trails	$450
Baseline inventory of all established campsites	$2,000
Mark/Post trails according to ATB-use designation	$200
Inspect Ranger Cabin and Garage, determine financial costs of implementing preferred alternatives and compare, consult with APA and OPRHP	20 person-days
Open 2 miles of the Roosevelt truck trail for CP-3 use and enlarge the south parking area	$10,000
Total Cost - Year 1	$126,000

Year 2	Estimated Cost
Construct bridges on Vanderwhacker snowmobile trail	$8,000
Build Balfour Lake canoe access site, bank stabilization and parking area (4-car)	$10,000
Construct snowmobile trail to facilitate access between Pottersville and Schroon Lake	$14,000
Close campsites that do not conform to separation distance guidelines	$650
Remove two fireplaces at west end of Oliver Pond	$100
Total Cost - Year 2	$32,750

Year 3	Estimated Cost
Maintain Cheney Pond access road and install boulders to prohibit trailered boat launching of trailered boats	$9,700
Build Cheney Pond lean-to	$9,700
Oliver Pond parking area work	$1,800
Construct Moxham Mountain trail and parking lot (3-car)	$12,300
Total Cost - Year 3	$33,500

Year 4	Estimated Cost
Construct Wolf Pond trail	$8,300
Build Wolf Pond lean-to	$9,700
Construct Raymond Brook drainage nordic ski trails and parking lots, after reaching agreement with neighboring landowners	$21,500
Formalize Vanderwhacker Pond trail and build parking lot	$8,000
Total Cost - Year 4	$47,500

Year 5	Estimated Cost
Upgrade upper portion of snowmobile trail between Stony Pond trail and Minerva hamlet center	$2,000
Work to restrict motorized access to Muller Pond	$3,000
Relocate Muller Pond tent site; designate and construct 2 additional sites	$1,500
Upgrade Northwoods Club Road campsites	$4,000
Surplus old Ranger buildings on 28N if no relocation site found	$0 - $10,000 depending on public interest to surplus
Update and re-print VMWF brochure and map	$5,000
Investigate and map remnant trails and paths at VMWF access from 28N in Newcomb	3 days
Remeasure/monitor all established campsites	$2,000

Year 5	Estimated Cost
Begin draft revisions for this Unit Management Plan	**
Total Cost - Year 5	$27,500

Cost Summary

Annual Maintenance Costs: **$132,500**
Five year annual total: **$267,750**
Total: **$400,250**

Other Activities (To be completed as soon as possible):

Activity	Division	Cost
Reach agreement with Moose Pond Club over cost-sharing of maintenance of Moose Pond Road, remove "Private Way" sign	LF LA	** **
Reach agreements with private property owners to build trail between Little Gore and Raymond Brook ski trails	LF LA	** **
Reach agreements with private property owners for snowmobile trail to facilitate access between Newcomb and Minerva	LF LA	** **
Reach agreements with private property owners for snowmobile trail to facilitate access between Pottersville and Schroon Lake	LF LA	** **
Complete land title and boundary line surveys as quickly as possible	LF	**
Develop a system to monitor public use of the unit.	LF LE	? ?

LF - Lands & Forests, LE - Law Enforcement, Op - Operations, LA - Legal Affairs

** - normal program funding
? - Cost unknown, not part of normal program funding

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Appendices

APPENDIX A: Response to Public Comments

The following is a summary of public comments received in June and July of 2004 following the release of the Draft UMP for Public Review and Department responses to them.

SNOWMOBILE TRAILS

1. Snowmobiles should not be allowed in the Forest Preserve

   The APSLMP allows snowmobile trails in units classified as Wild Forest. See pages 32-38 of the APSLMP (or Appendix M of this UMP).

2. Do not make trails 12 feet wide

   This UMP does not contain a proposal to increase snowmobile trail widths to 12 feet. Specifications for snowmobile trails proposed in this UMP will conform to relevant APSLMP guidelines and DEC policy.

3. a. Snowmobile trail proposals should be related back to the objectives identified in the draft Comprehensive Snowmobile Plan (CSP) for the Adirondack Park.
   b. The draft CSP should have no bearing on this UMP, since it does not exist in a finalized state, and no snowmobile trails should be built until the draft CSP is finalized.

   Proposals in this UMP for the construction and maintenance of snowmobile trails in the Vanderwhacker Mountain Wild Forest have been made within the spirit of language set forth in the APSLMP and current policy. The draft CSP was not considered to be a guiding document in the development of this UMP. Reference is made to the draft CSP within the context of potential amendments to the VMWF UMP that may be considered when the draft CSP is finalized. See Appendix I of this UMP for additional discussion.

4. Per the APSLMP, do not increase motor vehicle use in the Forest Preserve. The "no material increase" guideline is being violated.

   A discussion of the UMP with respect to the "no material increase" provision of APSLMP Basic Guideline #4 is found on page 211.

5. The UMP encourages snowmobile use, which is prohibited under Basic Guideline #4 of the APSLMP.

   See page 169 for a discussion related to APSLMP Basic Guideline #4.

6. a. Use Alternative A/B/C/D/E/F in the trail to facilitate snowmobile access between Minerva and Newcomb.
   b. Don't use Stony Pond snowmobile trail in Minerva-Newcomb connector
   c. Use/Do not use the Vanderwhacker trail in the trail to facilitate snowmobile access between Newcomb and Minerva

   See Appendix I beginning on page 169 for a complete analysis of the above alternatives.

7. Allow track groomers on trails proposed to facilitate access between communities

   The type(s) of groomers allowed on snowmobile trails in the VMWF will depend on the provisions of current or future policy, and not this UMP.

8. General support for snowmobile link between Pottersville and Schroon Lake

   See discussion on page 207 for the referenced proposal.

9. Harris Lake by-pass snowmobile trail is OK, but recommend proper and highly visible signage and enforcement along the route to ensure that snowmobile traffic does not occur along Newcomb Lake Road

Such signage will be installed. Regular Forest Ranger patrols of the area and a year-round presence of Operations staff at the Gatehouse Complex should also help to deter illegal use of the road.

10. Snowmobile trails should avoid remote areas and stay within or alongside existing ROW's

For the most part, proposals in this UMP related to the VMWF snowmobile trail network will result in trails that avoid remote areas and/or stay along existing rights-of-way.

11. The UMP does not correlate projected use to projected environmental impacts

Projected use figures are difficult to estimate, but the preferred alternatives for snowmobile trails to facilitate access between communities have been chosen at least partially based on their ability to withstand increased levels of use. For instance, Alternative D (the preferred alternative) of the trail to facilitate snowmobile access between Minerva and Newcomb will direct snowmobile traffic through a substantial portion of VMWF using an existing travel corridor with a high capacity to withstand use - the D&H railroad bed.

12. A cost-benefit analysis regarding snowmobiling's purported economic impacts needs to be developed.

Proposals for the construction and maintenance of snowmobile trails in the Vanderwhacker Mountain Wild Forest have been made within the spirit of language set forth in the APSLMP and current policy.

13. Assessment of impacts related to snowmobile trail proposals needs to be added, including, among other things, exhaust and increased noise levels.

The preferred alternatives have been chosen at least partially based on their ability to withstand increased levels of use. For instance, Alternative D (the preferred alternative) of the trail to facilitate snowmobile access between Minerva and Newcomb will direct snowmobile traffic through a substantial portion of VMWF using an existing travel corridor with a high capacity to withstand use - the D&H railroad bed.

14. Snowmobile trail construction should be put on hold until the environmental and economic studies are completed within the context of a park-wide study of snowmobiling.

Overall the proposed trail alternatives will only slightly increase the VMWF snowmobile trail system. Such trail development (increases) will conform to meet the State's most environmental friendly guidelines-SEQR.
Proposals for the construction of snowmobile trails in the Vanderwhacker Mountain Wild Forest have been made within the spirit of language set forth in the APSLMP and current policy. The draft Comprehensive Snowmobile Plan (CSP) was not considered to be a guiding document in the development of this UMP. Reference is made to the draft CSP within the context of potential amendments to the VMWF UMP that may be considered when the draft CSP is finalized. See Appendix I of this UMP for additional discussion.

15. Snowmobile trail locations should be determined by local communities and snowmobile clubs affected.

The Department worked with a great many individuals and groups, including local governments and snowmobile clubs, to develop the alternative trail locations.

CONFLICTING USES

1. Snowmobiling and nordic skiing are incompatible uses; there should be more places for people to ski.

If nordic skiers wish to avoid trails on which they may encounter snowmobiles, there are many options currently available in the VMWF, including: the trails to Hewitt Pond, Boreas River, Rankin Pond, Muller Pond cemetery, and Vanderwhacker Pond; the trails at Little Gore; and the Roosevelt truck trail, not to mention the numerous trails in the adjacent Hudson Gorge Primitive Area, Hoffman Notch Wilderness, High Peaks Wilderness, Siamese Ponds Wilderness, and Santanoni Historic Area, all of which are off-limits to snowmobiles.
As the VMWF UMP is implemented, several other trails will be open to nordic skiing but not snowmobiling, including the Wolf Pond, Linsey Marsh, Moxham Mountain, and Raymond Brook trails.

2. Bicycling and equestrian use are incompatible with hiking and care should be taken when designating trails for these uses.

Potential conflicts with other recreationists have been considered in the designation of such trails. See page 93 and Appendix J.

3. Opposed to designation of the Linsey Marsh trail for bicycle use because it could lead to user conflicts.

See #2 above. The Linsey Marsh trail is currently open to both bicycling and hiking, and the Department has received no reports of user conflict on the trail. This UMP recognizes the trail as suitable for all terrain bicycle use and proposes to continue to allow that use. Furthermore, the current very low level of use by any user group suggests that the potential for user conflict is likewise very low. However, the Department will monitor use of the trail and take steps to alleviate user conflict problems should they arise.

FISHERIES

1. Treat at least some lakes and ponds as ecosystems in their own right rather than fish reservoirs. The repeated use of Rotenone should be avoided, because of possible unknown toxic effects. Fishing could be prohibited in at least some re-claimed lakes and ponds in the interest of fish communities.

The Department does not consider lakes or ponds as strictly fish reservoirs. As this comment implies, lakes and ponds are important ecological systems. However, fishing per se does not endanger the integrity of pond or lake ecosystems. The Department uses closed seasons, minimum length limits, and bag limits to prevent over-fishing. Angler use of fishery resources is a legitimate and ecologically compatible activity, and when properly regulated will not negatively impact fish

communities. The effects of reclamation with rotenone have been extensively studied. Identifiable effects are short term and not cumulative.

2. Why encourage and promote angler use? This leads to more expense and resources in providing fishing opportunities at the expense of other wildlife programs.

The Department is legally mandated to promote sound management practices of fish and wildlife resources for recreational purposes. Fishing is a legitimate recreational activity. The majority of the state monies used in managing the fishery resources come from the Conservation Fund, which is comprised of the sale of hunting, fishing, and trapping licenses. The money used to manage the fishery resources within the Vanderwhacker Mountain Wild Forest does not come at the expense of other wildlife programs.

3. The Department needs to undertake an adequate public education program prior to reclamation of water bodies.

We agree. The use of baitfish is discussed in this UMP. Moreover, the use and possession of fish for use as bait is prohibited in selected waters within the unit in an effort to prevent the introduction of unwanted fish species. Signs to this effect are posted and Bureau of Fisheries staff do periodic checks to make sure the signs are maintained. We also post at some locations educational signs about baitfish and their potential consequences for Adirondack lakes and ponds. The Freshwater Fishing Regulations Guide discusses the use and possession of baitfish and the potential negative consequences of baitfish introductions. In addition, an article in the Department's magazine "The Conservationist" discussed the issue. However, additional education about this issue is a desirable goal. This opportunity will be explored.

4. Balfour Lake has been fished out as a result of increased public fishing and access, and should be stocked.

The Bureau of Fisheries recently surveyed Balfour Lake. Conditions found during the survey indicate that Balfour is a viable candidate for stocking. The lake will be stocked experimentally to see if trout stocking can help re-establish a salmonid fishery in Balfour Lake.

WILDLIFE

1. General support for UMP's recommendations regarding Burroughs Cave

See discussion on pg 31 for referenced management recommendations.

INVASIVE PLANTS

1. Terrestrial invasive plant species are mentioned in the UMP, but not aquatic invasives.

According to the Adirondack Park Invasive Plant Program (APIPP), there are no known occurrences of invasive aquatic plants within the VMWF. Individuals aware of any such infestations should report them to DEC and/or the APIPP. Recreationists can avoid inadvertently transferring aquatic invasive species between waters by thoroughly inspecting and cleaning equipment between uses.

2. The section on invasive plants should be updated based on the latest findings of the Adirondack Park Invasive Plant Program.

   The information in the UMP is up-to-date and agrees with information kept by the APIPP. The location of the only known invasive plant infestation on VMWF lands was originally reported to APIPP by Department staff. Information on the location of additional infestations on state lands adjacent to VMWF and Best Management Practices for controlling invasive plant infestations have been added as Appendix R to the UMP since the release of the Draft UMP for Public Review.

3. Potential management actions to arrest the Japanese knotweed infestation on Northwoods Club Road need to be identified. More than one year of work to combat Japanese knotweed is necessary.

   Management actions to eliminate the Japanese knotweed population on VMWF lands along Northwoods Club Road have been updated to reflect current APIPP recommendations for control of that species.

ACCESSIBILITY

1. General support for the substitution of the Arrow Road with the Roosevelt truck trail, but concern that primitive tent sites along the truck trail will be easily accessible and used for "partying"

   Only valid CP-3[1] permit holders will be allowed to access the proposed primitive tent sites along the Roosevelt truck trail via motor vehicle. All other public motorized use will be prohibited, but the truck trail will remain open to non-motorized use by the public. The Department will monitor the truck trail and take the steps necessary to curb illegal use, should it occur.

2. General support for the proposals to improve access for people with disabilities

   See page 100 for the referenced proposals.

FIRE TOWER

1. The Vanderwhacker fire tower should be retained and maintained for educational use. General support for recommendations regarding rehabilitation of the Vanderwhacker fire tower.

   The Vanderwhacker Mountain fire tower will be retained. See page 97 for proposals related to the fire tower.

TRAILS

1. Support/Oppose trails to Moxham Mtn., Wolf Pond, Vanderwhacker Pond, and the VIC-Santanoni connectors.

   These proposals are made within the guidelines of the APSLMP, which states in part that "those types of outdoor recreation that afford enjoyment without destroying the wild forest character or natural resource quality should be encouraged [in Wild Forest areas]", and represent appropriate opportunities to develop additional foot trails in the VMWF. Descriptions of proposed trail locations are found in Appendix J.

[1]Commissioner's Policy #3 - Motor Vehicle Access to State Lands under Jurisdiction of the Department of Environmental Conservation for People with Disabilities

2. Would like to see a re-route of the northern end of the Hoffman Notch trail.

   The northern end of the trail is located on so-called silvicultural lands that are currently classified as Wild Forest. However, as mentioned on page 104 of this UMP, any management activities related to the Hoffman Notch trail will be addressed in the Hoffman Notch Wilderness Unit Management Plan since the trail mostly serves the wilderness area and the majority of the trail is located within that area. Moreover, it is anticipated that the APA may soon reclassify this parcel and add it to the adjacent Hoffman Notch Wilderness. These comments will be passed along to the planning team responsible for developing the Hoffman Notch Wilderness UMP.

3. The North Country National Scenic Trail (NCNST) should be routed through North Creek.

   Potential NCNST routes through the VMWF are discussed on page 223, but the actual route will be determined through a separate process and amendments made to relevant Unit Management Plans, if necessary.

4. Need for new hiking trails and impacts of those trails needs to be explained

   Hiking trail proposals in this UMP have been made under the guidelines of the APSLMP in an attempt to balance protection of the natural wild forest setting and improved access to the unit. Furthermore, the APSLMP identifies Wild Forests as appropriate areas to accommodate much of the future use of the Adirondack Forest Preserve. Public requests for additional hiking opportunities within VMWF during the development of this UMP were numerous and the Department has chosen a few that it considers will not degrade the resource. Of course, monitoring is important, and it will be conducted to ensure protection of the natural resources and wild forest character of the unit.

5. The Moxham Mountain trail proposal should be built to accommodate 4-season use.

   The trailhead for the proposed Moxham Mountain trail will be located on the seasonal unplowed portion of Fourteenth Road. Unfortunately, the snowplow turn-around for Fourteenth Road is located east of the proposed Moxham Mountain trailhead (before the road enters state lands), and therefore, it may not be possible to park at the trailhead during the winter months. Moreover, parking at snowplow turn-around areas is not normally allowed, and for obvious reasons.

6. General support for the Raymond Brook ski trail

   A description of the Raymond Brook ski trail proposal is found on page 218.

7. Improve opportunities for equestrian use

   Because opportunities for equestrian use currently exist on Newcomb Lake Road adjacent to VMWF, the VMWF UMP suggests expanding equestrian opportunities in this area; in particular through designating the proposed snowmobile/bicycle trail between the Lake Harris Campground and the Santanoni Gatehouse Complex for equestrian use. The UMP also recognizes that such a designation may require amendments to the Santanoni and Lake Harris Campground UMP's.

8. Would like to see an emphasis on improving maintenance of existing trails

Improving trail maintenance in this unit is an important goal of DEC managers. In recent years, the VMWF has benefitted from the great work of Student Conservation Association crews and other volunteers, and we have every intention of continuing these partnerships to improve trail maintenance in the VMWF in the future. Specific projects for the tower trail and the Stony Pond trail are listed in Appendix J, but other maintenance projects may be undertaken in the unit as time, funding, and available resources permit.

28N RANGER CABIN

1. Supports either the demolition or relocation of the 28N Ranger Cabin and garage. Don't waste money on preserving these buildings.

As described on page 94, the Department is attempting to adhere to the guidelines of both the Adirondack Park State Land Master Plan (APSLMP) and the State Historic Preservation Act (SHPA) in determining whether to preserve, relocate, or raze these buildings. A cost assessment of each alternative is scheduled for Year One of the UMP. Following this assessment, DEC will work in consultation with the APA and the NYS Office of Parks, Recreation, and Historic Preservation (OPRHP) to determine the environmental and historical costs associated with each alternative, and choose the alternative that is both financially feasible and best meets the guidelines of the APSLMP and SHPA.

APA

1. Want clarification on the definitions of the terms motor vehicle, ATVs, and snowmobiles used in the APSLMP.

The Adirondack Park Agency is responsible for interpretations of the APSLMP. Questions regarding interpretation of such terms should be directed to the APA.

SIGNAGE

1. Would like a sign to Lester Dam where the trail leaves the Cheney Pond road.

This UMP contains a proposal to install a sign at this location and a trail register a few hundred feet down the trail.

2. Where's the sign inventory?

A sign inventory was completed during the initial stages of development of the UMP, the results of which were not included in the draft UMP for Public Review. There are approximately 18 signs in VMWF. (Signs are occasionally vandalized and replacement can take up to one year, due to Sign Shop backlog). Most signs are located along roads and/or at trailheads (~11). Others are located at interior sites, such as trail junctions, lean-to's, and ponds or located in association with gates (i.e., stop signs).

3. Improve marking of Forest Preserve lands in the vicinity of Thilo Road and Charley Hill Road.

The draft UMP for Public Review included the proposal (on page 88) to "[p]ost 'Wild Forest' signs at the points where the Schroon Lake snowmobile trails enter State Land", which includes those Forest Preserve lands in the vicinity of Thilo Road. As for Charley Hill Road (not to be confused with Charley Hollow Road), the VMWF actually abuts the road for only a very short distance. (See Facilities Map in Appendix K). Overall, the VMWF has roughly 204 miles of boundary line. The Department recognizes that well-marked boundaries are extremely important to the proper management of state lands and will adhere to the current policy of remarking boundary lines every seven years.

CAMPING

1. Roadside campsites on Route 28N (at the Boreas River) and Blue Ridge Rd (at the Boreas River) should be closed due to unconsolidated trash, enforcement issues, excessive tree cutting, soil compaction and erosion, vegetation trampling, and misuse of fires.

The UMP currently proposes the closure of one of the two sites located at Blue Ridge Road and the Boreas River in accordance with separation distance guidelines of the APSLMP. The remaining site is removed from the snowplow turn-around and well-screened from Blue Ridge Road. The UMP also proposes the closure of 2 of the 5 sites located at Route 28N and the Boreas River in accordance with separation distance guidelines of the APSLMP. Overall, this site is particularly hardened and thus soil compaction, erosion, and vegetation trampling are not anticipated to be problems at the remaining small grouping of 3 primitive sites. These sites also possess cement fireplaces, which help to prevent the misuse of fires. Trash has been an occasional problem at this location and others. Education, through Forest Ranger patrols and the use of "Carry it in - Carry it out" signage, will be used to improve trash removal at this site. Furthermore, the Department is planning a park-wide inventory to determine the extent to which roadside camping exists in Wild Forest areas and will establish, in consultation with the APA, design criteria for such campsites, intended to minimize resource and social impacts to the wild forest, including those raised in the above comment.

2. More detail should be given on current status of campsites.

The UMP contains a listing of all designated campsites, as many undesignated, user-created sites as are known to exist, and general information regarding use. (See pages 39, 45, and 59). Unfortunately, year-round use figures are not available, so further detail regarding status has not been included in the UMP. A baseline inventory of campsites within the VMWF is planned for Year One of the UMP. Such an inventory will provide the Department with details of existing conditions at each site; improving the monitoring of changes over time and improving the timely initiation of necessary corrective measures.

3. Current and anticipated impacts on campsites need to be improved

See #1 and #2 above.

4. Relocate primitive tent sites closed through the UMP to Balfour Lake (east of 28N), Rankin Pond, Big Sherman Pond, Vanderwhacker Pond, and Center Ponds.

   Camping pressure and resource conditions at these areas are such that there does not appear to be a need to relocate primitive tent sites to these locations. However, the Department will continue to monitor these areas for impacts due to at-large camping and may, in consultation with the APA, designate campsites in the future, if necessary.

ALL TERRAIN BICYCLES (ATB's)

1. General support for trail proposals creating an ATB loop from the Lake Harris Campground to the Santanoni Gatehouse Complex to the Santanoni Great Camp Complex

   This trail is described in more detail on page 221 in Appendix J. The trail is proposed for consideration in the next revisions of this UMP and may also require revisions to the Camp Santanoni Historic Area and/or Lake Harris Campground UMP's before it can be built.

2. The Vanderwhacker trail should be opened to ATB's.

   The Vanderwhacker trail is generally too wet and too rough to be suitable for ATB use.

3. The tower trail should be open to ATB's from Moose Pond Rd to the observer's cabins.

   See #2 above. Furthermore, the trail distance from Moose Pond Road to the observer's cabins is only a mile. Once past the observer's cabins, the tower trail becomes too steep for ATB use.

4. The north end of the Hoffman Notch trail and the Roaring Brook, Rabbit Pond, and Oak Ridge trails should be open to ATB use.

   Although the north end of the Hoffman Notch trail is located within a parcel designated as Wild Forest, the parcel is currently under consideration by APA for reclassification as Wilderness and addition to the adjacent Hoffman Notch Wilderness. The APSLMP does not allow for bicycle trails in wilderness areas. In the case of the Roaring Brook, Rabbit Pond, and Oak Ridge, ATB use is currently prohibited on the portions of these trails outside the VMWF. Not only do these trails lead to areas where biking is not permitted, but the VMWF portions of all these trails are quite short. Opening such a trail to ATB use doesn't really provide a suitable ATB opportunity and may actually encourage illegal riding.

5. The Wolf Pond trail proposal should be designated for ATB use.

   Because the exact layout of the trail has not yet been determined, the Wolf Pond trail will be designated as a foot trail only at this time. Following construction of the trail, designation for use via ATB may be considered in future revisions to the UMP.

6. The Schroon Lake area snowmobile trails should be designated for ATB use.

This change has been made. The May 2004 VMWF Draft UMP for Public Review originally recommended that these trails be closed to ATB use until such time that public ATB use is allowed on the sections of trail that cross private lands. A representative of the Town of Schroon's mountain biking initiative has assured the Department that public ATB use is currently allowed on the private land portions of these trails, and thus the UMP has been updated.

BALFOUR LAKE CANOE LAUNCH

1. Develop/Do not develop a canoe launch at Balfour Lake

See Appendix J, for discussion regarding the proposed canoe launch on Balfour Lake.

2. Develop a canoe launch at Balfour Lake that effectively restricts launching of power boats of any kind.

The proposed canoe launch will be designed to prevent the launching of power boats from this location. See Appendix J for more details.

3. A horsepower limit of 5-10 hp should be established for all users on Balfour Lake, except for boats operated for instructional purposes by existing professional summer camp facilities.

Neither regulations on horsepower limits nor motor restrictions altogether are proposed for Balfour Lake since a significant portion of the shoreline is privately owned. However, the canoe launch proposed for the recently acquired state property on the northeast shore of the lake will be designed to prevent the launching of power boats.

4. No need to construct the proposed canoe launch on Balfour Lake, because what's currently there is sufficient. Additional development at Balfour Lake may attract motorboats and/or vandalism.

The canoe launch will be designed to prevent the launching of motorboats, and the number of users of the site at any one time will be limited by the size and design of the launch and parking area. Furthermore, camping at the canoe launch is currently prohibited and is proposed to remain so. See Appendix J for further details.

MISCELLANEOUS

1. Reclassify the Sand Pond Mountain and North River Mountains silvicultural parcels as Wilderness and add them to the Hoffman Notch and High Peaks Wildernesses, respectively.

   Such a reclassification is currently under consideration by the APA. Furthermore, the APA has determined that a UMP cannot contain recommendations to reclassify state lands.

2. The Department should undertake vista cutting at Lester Dam to re-establish open views of the High Peaks.

   The cutting of vegetation to improve scenic vistas on Wild Forest lands is not authorized by the APSLMP.

3. Improve parking at Rankin Pond.

   The current parking situation for this 0.4 mile trail is satisfactory. In addition to the small parking area immediately adjacent to the trailhead, recreationists may also park across the road in the small pull-off within the DOT right-of-way.

4. Improve facilities map, alternatives maps, and significant communities map.

   A 11 x 17 version of the facilities map was to be printed in the May 2004 Draft UMP for Public Review, but the 8½ x 11 version was printed due to a misunderstanding at the Print Shop. Also, improvements have been made to this and many of the other maps in the draft.

5. Moose Pond Road (a.k.a. Vanderwhacker Rd.) should be gated at 28N and motorized access prohibited beyond this point to all but Moose Pond Club members.

   Keeping this road open to motor vehicles is in the interest of the People of the State of New York, as the summit of Vanderwhacker Mountain offers some of the best views anywhere in the Adirondacks. The round-trip distance from the trailhead to the summit and back is 5 miles; a suitable distance for a family-oriented foot trail. If motorized use of the road by the public were prohibited, the round-trip distance from 28N to the summit and back would be over 11 miles, which would preclude use by the majority of people who currently enjoy use of the trail. The Department and the Moose Pond Club may work together to discourage the public from driving the Moose Pond Road during mud season, in order to protect the trail and the road, from negative impacts due to foot and vehicle traffic during mud season, but year-round closure of the road to the public is not proposed at this time. The Department may consider such action in future revisions to this UMP if it is deemed necessary in protecting the resource.

APPENDIX B: Pond Descriptions

Pond Management Classifications:

Adirondack Brook Trout Ponds - Adirondack Zone ponds which support and are managed for populations of brook trout, sometimes in company with other salmonid fish species. These waters generally lack warmwater fishes but frequently support bullheads. Management may include stocking.

Coldwater Ponds and Lakes - Lakes and ponds which support and are managed for populations of several salmonids. These waters generally lack warmwater fishes but frequently support bullheads. Management may include stocking.

Other Ponds and Lakes - Fishless waters and waters containing fish communities consisting of native and non-native fishes which will be managed for their intrinsic ecological value.

Two-Story Ponds and Lakes - Waters which simultaneously support and are managed for populations of coldwater and warmwater game fishes. The bulk of the lake trout and rainbow trout resource fall within this class of waters. Management may include stocking.

Unknown Ponds and Lakes - Waters which could not be assigned to the subprogram categories specifically addressed in this document due to a lack of or paucity of survey information.

Warmwater Ponds and Lakes - Waters which support and are managed for populations of warmwater game fishes and lack significant populations of salmonid fishes. Management may include stocking.

This list of ponded waters in the Vanderwhacker Wild Forest was obtained from the NYS Biological Survey. Some ponds listed in the Biological Survey were created by beaver dams and are now drained. In the following discussion and in Tables 1 and 2, the drained ponds continue to be listed for consistency with the Biological Survey, but the acreages have been reduced to reflect conditions as observed in the field. Also, the number of ponds may vary depending on whether referencing ponds as listed in the Biological Survey, or ponds existing in the unit.

1. **Balfour Lake** (UH-P555)
Balfour Lake is about 91 acres in area with a maximum depth of about 46 feet. Reports indicate that historically the lake supported a good lake trout and brook trout fishery. Four surveys on Balfour Lake from 1932 to 1968 document introductions of several species. A 1946 survey collected three species apparently not present in the previous (1932) survey: the native-but-widely-introduced pumpkinseed; and non-native golden shiners and bluntnose minnows. By 1956 yellow perch were established, and the 1968 survey collected the native-but-widely-introduced brown bullhead and the non-native smallmouth bass. The 1968 survey found a very low abundance of coldwater fishes including lake trout, splake and brook trout, in combination with introduced warmwater fishes. Splake stocking has since been discontinued. Based on the abundance of introduced fishes, a reclamation would be desirable. However, the relatively large tributary system, including sizable wetlands, would make conducting a reclamation very difficult. To date, public access to Balfour Lake has been difficult with private land separating the public land from the road. A land purchase that was completed in June, 2000 will provide desirable access from the road to

the lake. A car top boat access site (constructed to appropriate ADAAG, if possible) is planned for that area.
Balfour Lake will continue to be managed as a two-story pond to preserve its native fishes in the presence of non-native species.

Management Class: Two-story

2. **Barnes Pond** (UH-P386)
Barnes Pond is a 9-acre pond with a maximum depth of 25 feet. The pond was reclaimed in 2003 and will be managed for brook trout. Prior to that reclamation, Barnes Pond supported abundant brook trout (sustained by stocking) in combination with native-but-widely-introduced creek chubs and brown bullheads, and non-native golden shiners. Golden shiners were not collected during surveys in 1957 and 1963, but were present during a survey in 1977. An inspection of the outlet in 2000 located several natural fish barriers judged to be adequate to enable a reclamation of Barnes Pond. Photos of three such barrier locations were included in the application to the APA for the reclamation conducted in 2003. In combination with the individual barriers on the outlet, a very steep gradient (474 feet per mile over a distance of 0.32 miles) yields a cumulatively difficult route of passage to serve as a barrier.

Barnes Pond will be managed as an Adirondack Brook Trout pond.

Management Class: Adirondack Brook Trout

3. **Big Sherman Pond** (UH-P383)
Big Sherman Pond has a surface area of 17 acres and a maximum depth of about 13 feet. Big Sherman is closely connected to Little Sherman (UH-P383a). A 1996 fisheries survey collected good numbers of brook trout (sustained by stocking) in addition to white suckers and the native-but-widely-introduced brown bullhead. Based on previous surveys, the native-but-widely-introduced creek chub is also present.

Big Sherman Pond will be managed as an Adirondack brook trout pond to preserve its native fishes in the presence of non-native species.

Management Class: Adirondack Brook Trout

4. **Bigsby Pond** (UH P-395)
This 46-acre pond has a maximum depth of 78 feet. A 1996 survey found a two-story fishery including: lake trout, redbreast sunfish, white suckers, and unidentified minnows; the native-but-widely-introduced brown bullhead; and the non-native smallmouth bass. In addition, the non-native golden shiner was documented by previous surveys. Two known non-natives, smallmouth bass and golden shiners were already present in Bigsby Pond at the time of the first survey in 1932. Fish species present in downstream water bodies have not moved upstream into Bigsby Pond. Therefore a barrier may exist on the outlet where it crosses private land (a section not visited in the 1996 survey). If a barrier is present, and if the private landowners are agreeable, then Bigsby Pond will be reclaimed. The presence of a self-sustaining lake trout population and the desires of the private landowners will be considered in the final decision on a reclamation.

Bigsby Pond will be managed as a two-story pond to preserve its native fishes in the presence of non-native species. If the various concerns discussed above are addressed, then Bigsby Pond will be

reclaimed. If a reclamation is determined to be appropriate, the UMP will be amended to include the reclamation in the Schedule for Implementation, and the pond narrative will be revised to reflect the new situation.

Management Class: Two-story

5. **Bissell Pond** (UH-P553)
This small (4 acre) pond has not been surveyed. A portion of the pond is in the Vanderwhacker Unit while portions are on a private club.

Management Class: Unknown

6. **Black Pond** (UH-P389)
Black Pond has a surface area of 4.7 acres and maximum depth of 34 feet. The pond supports abundant brook trout with the native-but-widely-introduced brown bullhead reportedly also being present. Investigations in 1996 indicate that Black Pond is a viable reclamation candidate.

Black Pond will be managed as an Adirondack brook trout pond and will be reclaimed upon establishment of additional fish(es) to enhance and restore a native fish community. When a reclamation is determined to be appropriate, the UMP will be amended to include the reclamation in the Schedule for Implementation, and the pond narrative will be revised to reflect the new survey data.

Management Class: Adirondack Brook Trout

7. **Center Pond** (UH-P559)
This 12-acre pond has a maximum depth of about 25 feet. The most recent fishery survey was conducted in 1977 and found only brook trout. Inspections in 1996 indicated that the pond is a viable reclamation candidate.

Center Pond will be managed as an Adirondack brook trout pond and will be reclaimed upon establishment of additional fish(es) to enhance and restore a native fish community. When a reclamation is determined to be appropriate, the UMP will be amended to include the reclamation in the Schedule for Implementation, and the pond narrative will be revised to reflect the new survey data.

Management Class: Adirondack Brook Trout

8. **Cheney Pond** (UH-P560)
Cheney Pond is connected to Lester Flow on the Boreas River. The acreage listed in the NYS Biological Survey, 208 acres, includes both areas. Hearsay indicates that the Lester Flow Dam had partly breached during the 1990's, reducing the surface area by an unknown quantity. Orthoimagery taken in the mid-90's indicates the area of Cheney Pond is now around 60 acres and Lester Flow has largely drained to pre-dam levels. The connection with the Boreas makes the pond unsuitable for a reclamation. A 1987 survey determined that Cheney Pond supports brook trout (sustained by stocking), smallmouth bass and at least eight other species of fish, including non-natives and native-but-widely-introduced fishes. Two known non-natives, smallmouth bass and golden shiners, were common during the 1987 survey but were apparently not present during surveys in 1956 and 1932. In addition to the brook trout stocking, brown trout have been stocked beginning in 1996 to utilize the abundant forage fish.

Cheney Pond will be managed as a two-story pond to preserve its native fishes in the presence of non-native species.

Management class: Two-story

9. **Duck Pond** (UH-P387)
This 6-acre pond is very closely connected to Hewitt Pond. With a maximum depth of 2 feet, the habitat is not favorable for fish during many winters, and Duck Pond's fish community probably consists of seasonal immigrants from Hewitt Pond.

Due to its close connection to Hewitt Pond, Duck Pond will be managed so as not to detract from the "Adirondack Brook Trout" status of Hewitt Pond.

Management class: unknown

10. **Grassy Pond** (UH-P551)
This 19-acre pond has a maximum depth of 8 feet. A 1975 survey found that dense growths of floating-leaved macrophytes covered all but about 0.5 acres of the pond, indicating that most of the pond is shallow. The native-but-widely-introduced brown bullhead were the only fish collected. Largemouth bass may be stocked in Grassy Pond, but its remote location and potential for winterkill make it a low priority for stocking.

Grassy Pond will be managed as a warmwater pond to preserve its native fishes in the presence of non-native species. However, if largemouth bass introductions prove to be unsuccessful, future editions of this plan are likely to revise that to "other."

Management class: Warmwater

11. **Hewitt Pond** (UH-P388)
Hewitt Pond has a surface area of 165 acres and a maximum depth of 54 feet. Roughly half of the pond is on the Vanderwhacker Unit and half is private. The private owner once placed posted signs on floats in the pond to mark the public/private boundary. Hewitt Pond supports brook trout and common shiners along with the non-native golden shiner and the native-but-widely-introduced creek chub and brown bullhead. A survey in 1932 collected only brook trout and creek chubs, indicating that the brown bullheads and the common shiners may have been introduced species to this waterbody. The large tributary system limits the potential for a reclamation.

Hewitt Pond will be managed as an Adirondack brook trout pond to preserve its native fishes in the presence of non-native species.

Management class: Adirondack Brook Trout

12. **Horseshoe Pond** (UH-P403)
This 41-acre pond with a maximum depth of 30 feet supports a warmwater fishery. A 1964 survey collected redbreast sunfish, the native-but-widely-introduced brown bullhead, and non-native yellow perch and (reportedly) northern pike. However, Horseshoe Pond is presently the emergency water supply for the Hamlet of Schroon Lake and public use is discouraged. Active management is not anticipated while

public use is discouraged. If that situation should change (no change is expected) then potential management actions may include stocking largemouth bass or a reclamation.

Horseshoe Pond will be managed as a warmwater pond to preserve its native fishes in the presence of non-native species.

Management class: Warmwater

13. **Hotwater Pond** (UH-P550)
Hotwater Pond has a surface area of 10 acres and a maximum depth of 5 feet. A 1996 survey collected no fish, but the native-but-widely-introduced brown bullhead were present during a previous survey. The pond's shallow depth and apparent failure to support even bullheads indicate seasonal conditions unfavorable to fish. A 1996 inspection found a large area of wetlands (roughly 50 acres) on the inlet.

Hotwater Pond will be managed to preserve its aquatic habitat.

Management class: Other

14. **Little Rankin Pond** (UH-P556a)
This 2-acre pond has a maximum depth of 3 feet. A 1987 survey collected no fish and found a very low pH of 4.6. Similarly, a 1969 survey concluded that Little Rankin Pond was chemically unsuitable for fish life due to it being very shallow with abundant, decaying vegetation. Little Rankin Pond is connected to Rankin Pond by about 0.5 miles of stream. A large area of wetlands is present.

Little Rankin Pond will be managed to preserve its aquatic habitat.

Management class: Other

15. **Little Sherman Pond** (UH-P383a)
This 7-acre pond is located close to, and upstream of Big Sherman Pond (UH-P383). It has never been surveyed.

Management class: Unknown

16. **Lost Pond** (UH-P382a)
Lost Pond is small, 2.2 acres, with a maximum depth of 17 feet and a pH of 7.0. The pond was first surveyed in 1996. No fish were collected, but physical and chemical conditions indicate the pond is able to support fish. Brook trout stocking will be initiated based on the apparently favorable conditions.

Lost Pond (UH-P382a) will be managed as an Adirondack Brook Trout pond.

Management class: Adirondack Brook Trout

17. **Lost Pond** (UH-P548a)
This small, 1.4 acre, pond has not been surveyed.

Management class: Unknown

18. **Mud Pond** (UH-P390)
Based on topographic maps, the estimated the area of this pond is 1.2 acres. However, the 1932 survey describes it as a wet marsh with about 1/8 acre of water less than 1 foot deep. It probably supports minimal, or no fish life.

Management class: Unknown

19. **Muller Pond** (UH-P394)
This 40-acre, 15-foot-deep pond supports a warmwater fish community. A 1932 survey collected: white suckers and redbreasted sunfish; the native-but-widely-introduced brown bullhead; and the non-native yellow perch. Northern pike were reported as being present. An upstream water, Bigsby Pond also supports the non-native smallmouth bass (based on a 1996 survey), so smallmouth bass are likely to be present in Muller. The large tributary system, including Bigsby Pond, makes a reclamation impractical. Largemouth bass may be stocked in Muller Pond.

Muller Pond will be managed as a warmwater pond to preserve its native fishes in the presence of non-native species.

Management class: Warmwater

20. **Nate Pond** (UH-P577)
Nate Pond has a surface area of 21 acres and a maximum depth of 21 feet. The pond is the home water for the Nate Pond heritage strain of brook trout, and that strain continues to be sustained in the pond. The presence of competing fishes including redbreast sunfish, the native-but-widely-introduced creek chub, and non-native golden shiners, cause concern for the future of this strain. During 1999 about 52 brook trout were collected live from Nate Pond and transferred to another pond in an effort to perpetuate the Nate Pond strain. Those brook trout were fingerlings from the tributaries; the abundance of brook trout in the pond itself is low. The status of the Nate Pond strain in Nate Pond will be monitored. If a suitable donor population is established in another water, Nate Pond will be reclaimed and restocked with its native strain.

Nate Pond will be managed to protect the Nate Pond strain of brook trout. Management will include a reclamation if the strain is successfully established in another pond which can act as a donor water for restocking the strain back into Nate Pond. When a reclamation is determined to be appropriate, the UMP will be amended to include the reclamation in the Schedule for Implementation, and the pond narrative will be revised to reflect the new survey data.

Management class: Adirondack Brook Trout

21. **Newcomb Lake** (UH-P694)
Newcomb Lake was addressed in the High Peaks Unit Management Plan although the outlet and a portion of the lake are in the Vanderwhacker Wild Forest. The lake supports a coldwater fishery including brook and lake trout sustained by natural reproduction. Round whitefish were collected in 1972, and about 12 other fish species are known to be present. The lake's large size precludes a reclamation.

As stated in the High Peaks UMP, Newcomb Lake will be managed as a coldwater pond to preserve its native fishes in the presence of historically associated and non-native species.

Management class: Coldwater

22. **Oliver Pond** (UH-P385)
Oliver Pond has a surface area of 42 acres and a maximum depth of 14 feet. Based on a 1995 survey, Oliver Pond supports: brown trout (sustained by stocking) and northern redbelly dace; native-but-widely-introduced brown bullhead and pumpkinseed; and, non-native fathead minnows and golden shiner. The catch-per-unit-effort and size distribution of brown trout was very good. Oliver Pond was reclaimed in 1955 and again in 1968. Both reclamations apparently failed to eliminate pumpkinseeds. A concrete barrier dam was constructed on the outlet in 1965. The 1995 survey concluded that the lack of wetlands and the presence of a barrier make Oliver Pond an excellent reclamation candidate. However, some private lands may be involved. Springs are apparently present in the pond which may make a reclamation difficult, but would benefit natural reproduction by brook trout. A reclamation is proposed if additional fish introductions cause a decline in the quality of the brown trout fishery.

Oliver Pond will be managed as a coldwater pond to preserve its native fishes in the presence of historically associated and non-native species. The pond will be reclaimed if additional fish introductions degrade the quality of the trout fishery. When a reclamation is determined to be appropriate, the UMP will be amended to include the reclamation in the Schedule for Implementation, and the pond narrative will be revised to reflect the new survey data.

Management class: Coldwater

23. **Rabbit Pond** (UH-P527b)
Rabbit Pond has never been surveyed. However, based on its small size, 0.4 acres, Rabbit Pond probably supports minimal or no fish life.

Management class: Unknown

24. **Rankin Pond** (UH-P556)
This 14-acre pond has a maximum depth of 16 feet. A 1996 survey collected: brook trout (sustained by stocking) and northern redbelly dace; the native-but-widely-introduced creek chub and brown bullhead; and, the non-native golden shiner. In addition, brown trout stocking was initiated in 1998 to utilize the forage fishes better. A site inspection in 1957 found a sliding rock chute located about 0.2 miles upstream of Balfour Lake that would be at least a partial barrier to fish migrating up to Rankin Pond. The 1996 survey noted extensive wetlands and a connection to Little Rankin Pond (located upstream of Rankin).

Rankin Pond will be managed as a coldwater pond to preserve its native fishes in the presence of historically associated and non-native species.

Management class: Coldwater

25. **Stony Pond** (UH-P557)
Stony Pond has a surface area of 50 acres and a maximum depth of 24 feet. A 1996 survey found a pH of 5.4, and the flushing rate is estimated to be 3.6/year. Brook trout (sustained by stocking), native-but-widely-introduced brown bullhead and the non-native golden shiner were collected in 1996. White

suckers were collected in previous surveys and are probably still present. Golden shiners were not collected by surveys in 1977, 1962, 1958 and 1946, but were established by 1996. Ponds UH-P558 and UH-P558a are located upstream and include large areas of wetlands. The outlet may act as a barrier based on the very few species of fish present in the pond.

Stony Pond will be managed as an Adirondack brook trout pond to preserve its native fishes in the presence of non-native species. If additional fish introductions occur, yellow perch in particular, the pond will be reclaimed. When a reclamation is determined to be appropriate, the UMP will be amended to include the reclamation in the Schedule for Implementation, and the pond narrative will be revised to reflect the new survey data.

Management class: Adirondack Brook Trout

26. **Twenty-ninth Pond** (UH-P538)
This 10-acre pond has a maximum depth of about 30 feet. A 1999 survey collected: brook trout (sustained by stocking); native-but-widely-introduced brown bullhead and pumpkinseed; and, non-native bluntnose minnows and golden shiners. Physical characteristics would allow a reclamation, and a barrier could be constructed on the outlet. However, the outlet and a portion of the pond are in private ownership and the landowner did not support a reclamation when contacted in 1999. Twenty-ninth Pond will be reclaimed if and when that landowner no longer objects to a reclamation.

Twenty-ninth Pond will be managed as an Adirondack brook trout pond to preserve its native fishes in the presence of non-native species. The pond will be reclaimed if and when the private landowner no longer objects to a reclamation. When a reclamation is determined to be appropriate, the UMP will be amended to include the reclamation in the Schedule for Implementation, and the pond narrative will be revised to reflect the new survey data.

Management class: Adirondack Brook Trout

27. **Unnamed pond** (UH-P384)
This small pond has a surface area of 0.4 acres. It has not been surveyed but, based on its small size, it probably supports minimal fishery resources.

Management class: Unknown

28. **Unnamed pond** (UH-P5436)
A 1996 field check found no standing water at this location. A washed out beaver dam accounts for the lack of a pond where maps show one as being present.

Management class: (no longer a pond)

29. **Unnamed pond** (UH-P5437)
This small pond (4 acres) is essentially a wide spot in the outlet of Wolf Pond (also included in the Vanderwhacker Unit). It has not been surveyed, but probably contains fish species similar to Wolf Pond.

Based on topographic maps, there is probably not a barrier preventing movement of fish from this pond upstream into Wolf Pond. Therefore, this pond will be managed so as not to detract from the "Adirondack Brook Trout" status of Wolf Pond.

Management class: Unknown

30. **Unnamed pond** (UH-P5438)
This small pond (7 acres) is essentially a wide spot in the outlet of Wolf Pond (also included in the Vanderwhacker Unit). It has not been surveyed, but probably contains fish species similar to Wolf Pond.

Based on topographic maps, there is probably not a barrier preventing movement of fish from this pond upstream into Wolf Pond. Therefore, this pond will be managed so as not to detract from the "Adirondack Brook Trout" status of Wolf Pond.

Management class: unknown

31. **Unnamed pond** (UH-P5439)
A 1996 field check found no standing water at this location. A washed out beaver dam accounts for the lack of a pond where maps show one as being present.

Management class: (no longer a pond)

32. **Unnamed pond** (UH-P5451)

This small pond (0.7 acres) has not been surveyed. It is located very close to Wolf Pond and may be connected to that waterbody.

Unnamed pond (UH-P5451) will be managed so as not to detract from the "Adirondack Brook Trout" status of Wolf Pond.

Management class: unknown

33. **Unnamed pond** (UH-P5485)
This 1.7 acre pond has never been surveyed and is essentially a wide spot in the outlet of Newcomb Lake.

Management class: Unknown

34. **Unnamed pond** (UH-P5486)
This 1.2-acre pond has never been surveyed and is essentially a wide spot in the outlet of Newcomb Lake.

Management class: Unknown

35. **Unnamed pond** (UH-P5487)
This 2.2-acre pond has never been surveyed and is essentially a wide spot in Vanderwhacker Brook.

Management class: Unknown

36. **Unnamed pond** (UH-P5489)
This small pond (acreage unknown) has never been surveyed and is essentially a wide spot in Vanderwhacker Brook.

Management class: Unknown

37. **Unnamed pond** (UH-P551a)
This 8-acre pond has a maximum depth of about 5 feet. A 1996 survey collected brook trout (presumably wild) and northern redbelly dace, as well as the native-but-widely-introduced pumpkinseed and creek chub. A large marsh is located downstream.

Unnamed pond (UH-P551a) will be managed as an Adirondack brook trout pond to preserve its native fishes in the presence of non-native species.

Management class: Adirondack Brook Trout

38. **Unnamed pond** (UH-P5537)
This small (1.2 acre) pond has never been surveyed.

Management class: Unknown

39. **Unnamed pond** (UH-P553a)
This small (0.7 acre) pond has never been surveyed.

Management class: Unknown

40. **Unnamed pond** (UH-P558)
This small (0.9 acre) pond has never been surveyed. It is located a short distance upstream of Stony Pond (UH-P557).

Management class: Unknown

41. **Unnamed pond** (UH-P558a)
This 5-acre pond has never been surveyed. However, this pond is closely connected with Stony Pond (UH-P557 also in the Vanderwhacker Unit). The fish community may be similar to that in Stony Pond.

Due to its close connection to Stony Pond, unnamed pond (UH-P558a) will be managed so as not to detract from the "Adirondack Brook Trout" status of Stony Pond. If Stony Pond is reclaimed, this pond will be treated along with Stony Pond. When a reclamation is determined to be appropriate, the UMP will be amended to include the reclamation in the Schedule for Implementation, and the pond narrative will be revised to reflect the new survey data.

Management class: Unknown

42. **Unnamed pond** (UH-P561b)
This 6-acre pond has a maximum depth of about 4 feet. A 1996 survey collected: white suckers, northern redbelly dace and common shiners; native-but-widely-introduced brown bullhead and creek chubs; and non-native golden shiners. Largemouth bass may be stocked in this pond, but its remote location makes it a low priority for stocking.

Unnamed pond (UH-P561b) will be managed as a warmwater pond to preserve its native fishes in the presence of non-native species. However, if largemouth bass introductions prove to be unsuccessful, future editions of this plan are likely to revise that to "other."

Management class: Warmwater

43. **Unnamed pond** (UH-P562)
This 9-acre pond is a section of the Boreas River and has never been surveyed.

Management class: Unknown

44. **Unnamed pond** (UH-P562a)
A 1996 field check found no standing water at this location. A washed out beaver dam accounts for the lack of a pond where maps show one as being present.

Management class: (no longer a pond)

45. **Unnamed pond** (UH-P698a)
A 1996 field check found less than an acre of standing water at this location. A washed out beaver dam accounts for the small acreage relative to what is shown on maps.

Management class: Unknown

46. **Vanderwhacker Pond** (UH-P554)
This 22-acre pond has a maximum depth of about 12 feet. A 1996 survey collected: brown trout (sustained by stocking); white suckers; native-but-widely-introduced brown bullhead; and non-native golden shiners. Early records indicate this pond supported an excellent trout fishery. (Competition with golden shiners is the most likely cause for the decline; brook trout seem to be particularly vulnerable to competition in relatively shallow ponds like Vanderwhacker) Golden shiners apparently became

established between the 1956 survey and the 1978 survey. Brook trout were stocked until 1991 when the policy was changed to brown trout. The change was based on an abundance of forage/competing fish and poor returns of brook trout in the 1987 survey. Vanderwhacker Pond will be reclaimed if additional fishes, yellow perch in particular, become established. A 1996 inspection of the outlet found a drop that would likely be a barrier to certain fish species, and considerable additional gradient is present on the outlet downstream of that area. Also, the very gradual accumulation of new species (i.e. only four species were collected in 1996) indicates the outlet is less than favorable as a route for introductions.

Vanderwhacker Pond will be managed as a coldwater pond to preserve its native fishes in the presence of historically associated and non-native species. The pond will be reclaimed if additional fish species become established. When a reclamation is determined to be appropriate, the UMP will be amended to include the reclamation in the Schedule for Implementation, and the pond narrative will be revised to reflect the new survey data. An informal trail to Vanderwhacker Pond exists; Forestry staff will evaluate formalizing a trail into the pond.

Management class: Coldwater

47. **Wolf Pond** (UH-P561)
This 59-acre pond has a maximum depth of 15 feet. A 1987 survey collected: brook trout (sustained by stocking), common shiners and white suckers; native-but-widely-introduced creek chubs, brown bullhead and pumpkinseed; and, non-native golden shiners and banded killifish. Banded killifish were established in the pond by the first fishery survey (1932) while golden shiners were not documented at that time. The pond has a large tributary system.

Wolf Pond will be managed as an Adirondack brook trout pond to preserve its native fishes in the presence of non-native species. Options for developing a formal hiking trail into Wolf Pond will be investigated.

Management class: Adirondack Brook Trout

Table 1. Vanderwhacker Mountain Wild Forest - Ponded Water Inventory Data

Name	P#	Wshed	File	County	USGS Quad (7.5')	Management Class	Area (acres)	Max Depth (feet)	Mean Depth (ft)
Balfour Lake	555	UH	949	Essex	Dutton Mtn	Two-story	91.2	46	
Barnes Pond	386	UH	700	Essex	Olmstedville	Adk brook	9.1	25	11.5
Big Sherman Pond	383	UH	696	Essex	Olmstedville	Adk brook	17.1	13	5.6
Bigsby Pond	395	UH	711	Essex	Olmstedville	Two-story	46.2	78	
Bissell Pond	553	UH	944	Essex	Dutton Mtn	Unknown	4		
Black Pond	389	UH	703	Essex	Cheney Pond	Adk brook	4.7	34	
Center Pond	559	UH	953	Essex	Olmstedville	Adk brook	11.6	25	
Cheney Pond	560	UH	954	Essex	Cheney Pond	Two-story	208.1	14	7.6
Duck Pond	387	UH	701	Essex	Olmstedville	Unknown	5.9	2	
Grassy Pond	551	UH	941	Essex	Dutton Mtn	Warmwater	18.5	8	
Hewitt Pond	388	UH	702	Essex	Olmstedville	Adk brook	164.6	54	25
Horseshoe Pond	403	UH	721	Essex	Schroon Lake	Warmwater	40.8	30	
Hotwater Pond	550	UH	939	Essex	Dutton Mtn	Other	10.1	5	2.3
Little Rankin Pond	556a	UH	950	Essex	Dutton Mtn	Other	1.9	3	2.6
Little Sherman Pond	383a	UH	(696)	Essex	Olmstedville	Unknown	6.9		
Lost Pond	382a	UH	695	Essex	Olmstedville	Adk brook	2.2	17	
Lost Pond	548a	UH	(935)	Essex	Dutton Mtn	Unknown	1.4		
Mud Pond	390	UH	705	Essex	Cheney Pond	Unknown	1.2	1	
Muller Pond	394	UH	710	Essex	Olmstedville	Warmwater	40	15	
Nate Pond	577	UH	988	Essex	Dutton Mtn	Adk brook	21.2	21	7.6
Newcomb Lake	694	UH	1209	Essex	Santanoni	Coldwater	446.2	75	
Oliver Pond	385	UH	699	Essex	Olmstedville	Coldwater	41.5	14	5.6
Rabbit Pond	527b	UH		Warren	North River	Unknown	0.4		
Rankin Pond	556	UH	950	Essex	Dutton Mtn	Coldwater	13.8	16	6.6
Stony Pond	557	UH	951	Essex	Olmstedville	Adk brook	50.4	24	7.2
Twenty-ninth Pond	538	UH	921	Essex	Dutton Mtn	Adk brook	9.6	30	

Unnamed pond	384	UH	698	Essex	Olmstedville	Unknown	0.4		
Unnamed pond	5436	UH		Essex	Cheney Pond	(dry)	0	0	
Unnamed pond	5437	UH		Essex	Cheney Pond	Unknown	4.2		
Unnamed pond	5438	UH		Essex	Cheney Pond	Unknown	6.9		
Unnamed pond	5439	UH		Essex	Cheney Pond	(dry)	0		
Unnamed pond	5451	UH		Essex	Cheney Pond	Unknown	0.7		
Unnamed pond	5485	UH		Essex	Tahawus	Unknown	1.7		
Unnamed pond	5486	UH		Essex	Tahawus	Unknown	1.2		
Unnamed pond	5487	UH		Essex	Tahawus	Unknown	2.2		
Unnamed pond	5489	UH		Essex	Tahawus	Unknown			
Unnamed pond	551a	UH	(941+)	Essex	Dutton Mtn	Adk brook	7.6	5	
Unnamed pond	5537	UH		Essex	Newcomb	Unknown	1.2		
Unnamed pond	553a	UH	(946)	Essex	Tahawus	Unknown	0.7		
Unnamed pond	558	UH	952	Essex	Olmstedville	Unknown	0.9		
Unnamed pond	558a	UH	(952+)	Essex	Olmstedville	Unknown	5.4		
Unnamed pond	561b	UH	(961+)	Essex	Cheney Pond	Warmwater	6.1	4	
Unnamed pond	562	UH	963	Essex	Cheney Pond	Unknown	9.3		
Unnamed pond	562a	UH	(963+)	Essex	Cheney Pond	(dry)	0		
Unnamed pond	698a	UH	(1218)	Essex	Mount Adams	Unknown	0.5		
Vanderwhacker Pond	554	UH	947	Essex	Tahawus	Coldwater	22.2	12	7.2
Wolf Pond	561	UH	961	Essex	Cheney Pond	Adk brook	59.3	15	4.9
						Total	1399.1		

Unnamed Pond 5436, Unnamed Pond 562a, and Unnamed Pond 5439 have surface areas listed as 0 acres based on field observations during 1996
Unnamed Pond 698a has surface area listed as 0.5 acres based on field observations during 1996

Table 2a. Vanderwhacker Mountain Wild Forest - Ponded Water Survey Data

Name	P#	Wshed	Most recent chemical survey				
			Date	Source	ANC (ueq/l)	pH	Conduc-tivity
Balfour Lake	555	UH	1968	DEC		5.9	
Barnes Pond	386	UH	1996	DEC	34	6.5	22.3
Big Sherman Pond	383	UH	1996	DEC	28	5.8	19.4
Bigsby Pond	395	UH	1996	DEC	54	7.1	21.3
Bissell Pond	553	UH	none				
Black Pond	389	UH	1996	DEC	47	6.7	20.3
Center Pond	559	UH	1977	DEC		5.7	
Cheney Pond	560	UH	1987	ALSC	189	7.2	39
Duck Pond	387	UH	none				
Grassy Pond	551	UH	1975	DEC		6	
Hewitt Pond	388	UH	1987	ALSC	112	7	26.7
Horseshoe Pond	403	UH	1964	DEC		6.2	
Hotwater Pond	550	UH	1996	DEC	204	7.5	34.4
Little Rankin Pond	556a	UH	1987	ALSC	-21	4.6	26.9
Little Sherman Pond	383a	UH	none				
Lost Pond	382a	UH	1996	DEC	79	7.0	21.2
Lost Pond	548a	UH	none				
Mud Pond	390	UH	none				
Muller Pond	394	UH	1932	DEC		7.1	
Nate Pond	577	UH	1987	ALSC	83	6.9	26.6
Newcomb Lake	694	UH	1972	DEC		6.7	
Oliver Pond	385	UH	1995	DEC	170	7.3	41.7
Rabbit Pond	527b	UH	none				
Rankin Pond	556	UH	1996	DEC	35	6.4	41.3
Stony Pond	557	UH	1996	DEC	7.8	5.4	18.7
Twenty-ninth Pond	538	UH	1999	DEC	45	6.9	14.8
Unnamed pond	384	UH	none				
Unnamed pond	5436	UH	none				
Unnamed pond	5437	UH	none				
Unnamed pond	5438	UH	none				
Unnamed pond	5439	UH	none				
Unnamed pond	5451	UH	none				
Unnamed pond	5485	UH	none				
Unnamed pond	5486	UH	none				
Unnamed pond	5487	UH	none				
Unnamed pond	5489	UH	none				
Unnamed pond	551a	UH	1996	DEC	303	7.8	46.3

Unnamed pond	5537	UH	none				
Unnamed pond	553a	UH	none				
Unnamed pond	558	UH	none				
Unnamed pond	558a	UH	none				
Unnamed pond	561b	UH	1996	DEC	76	6.9	24.5
Unnamed pond	562	UH	none				
Unnamed pond	562a	UH	none				
Unnamed pond	698a	UH	none				
Vanderwacker Pond	554	UH	1996	DEC	93	7.2	24.7
Wolf Pond	561	UH	1987	ALSC	279	7.2	40.2

Table 2b. Vanderwhacker Mountain Wild Forest - Ponded Water Survey Data

			Most recent biological survey		
Name	P#	Wshed	Date	Source	Fish Species Present and Number Caught
Balfour Lake	555	UH	1968	DEC	LT (1), ST (1), SPL (2), SMB (1), YP (287), WS (36), GS & BB reported
Barnes Pond	386	UH	1996	DEC	ST (21), GS (12), CC (9). (BB in previous survey).
Big Sherman Pond	383	UH	1996	DEC	ST (9), WS (75), BB (21). (CC in previous survey)
Bigsby Pond	395	UH	1996	DEC	LT (8), WS(2), BB(4), RBS(1), SMB(6), minnows observed
Bissell Pond	553	UH	none		
Black Pond	389	UH	1996	DEC	ST (2). BB reported in previous survey.
Center Pond	559	UH	1977	DEC	ST (15)
Cheney Pond	560	UH	1987	ALSC	St (11), GS (20), CS (17), CC (1), WS (140), BB (18), RBS (2), PKS (10),
					SMB (10), BKF seen.
Duck Pond	387	UH	1932	DEC	
Grassy Pond	551	UH	1975	DEC	BB (200)
Hewitt Pond	388	UH	1987	ALSC	ST (29), GS (49), CS (8), CC (107), BB(282).
Horseshoe Pond	403	UH	1964	DEC	YP (267), RBS (67), BB (9), (NP reported)
Hotwater Pond	550	UH	1996	DEC	None caught (BB caught by ALSC)
Little Rankin Pond	556a	UH	1987	ALSC	None caught
Little Sherman Pond	383a	UH	none		
Lost Pond	382a	UH	1996	DEC	None caught
Lost Pond	548a	UH	none		
Mud Pond	390	UH	1932	DEC	
Muller Pond	394	UH	1932	DEC	YP (3), BB (2), WS (1), RBS (1), (NP reported)
Nate Pond	577	UH	1987	ALSC	ST (26), GS (21), CC (2), RBS (3).
Newcomb Lake	694	UH	1972	DEC	ST (61), LT (21), RWF (5), WS (653), BB (77), CS(112), GS (9), RBS (168),
					CC(19), CLM (8), PKS (85), LNS (84), FF (2), BNS, LC (4).
Oliver Pond	385	UH	1995	DEC	BT (43), GS (3), NRD (308), BB (20), PKS (3), FHM (1).
Rabbit Pond	527b	UH	none		
Rankin Pond	556	UH	1996	DEC	ST (12), GS (120), CC (14), NRD(9), BB (19).
Stony Pond	557	UH	1996	DEC	ST (31), GS (197), BB (47).
Twenty-ninth Pond	538	UH	1999	DEC	ST (18), BB (28), PKS (6), GS (532), BNM (1).
Unnamed pond	384	UH	none		

Unnamed pond	5436	UH	none		
Unnamed pond	5437	UH	none		
Unnamed pond	5438	UH	none		
Unnamed pond	5439	UH	none		
Unnamed pond	5451	UH	none		
Unnamed pond	5485	UH	none		
Unnamed pond	5486	UH	none		
Unnamed pond	5487	UH	none		
Unnamed pond	5489	UH	none		
Unnamed pond	551a	UH	1996	DEC	ST(9), NRD (35), CC(9), PKS(229)
Unnamed pond	5537	UH	none		
Unnamed pond	553a	UH	none		
Unnamed pond	558	UH	none		
Unnamed pond	558a	UH	none		
Unnamed pond	561b	UH	1996	DEC	GS(7), CS(61), NRD(10), CC(4), WS(1), BB(6).
Unnamed pond	562	UH	none		
Unnamed pond	562a	UH	none		
Unnamed pond	698a	UH	none		
Vanderwacker Pond	554	UH	1996	DEC	BT (6), GS (16), CC (22), WS (11), BB (7).
Wolf Pond	561	UH	1987	ALSC	ST (13), GS (20), CS (203), CC (10), WS (216), BB (34), BKF (1), PKS (23).

Species codes are as follows:

BB = brown bullhead	FF = fallfish	ST = brook trout	GS = golden shiner
BT = brown trout	SPL = splake	LNS = longnose sucker	BNS = blacknose shiner
BKF = banded killifish	LC = lake chub	SMB = smallmouth bass	NP = northern pike
CC = creek chub	LT = lake trout	WS = white sucker	NRD = northern redbelly dace
CLM = cutlips minnow	YP = yellow perch	RBS = redbreast sunfish	FHM = fathead minnow
CS = common shiner	RWF = round whitefish	BNM = bluntnose minnow	

Acreages for unnamed ponds 5436, 5439, 562a, and 698a are based on 1996 field checks.

Table 3. Classification of Common Adirondack Upland Fish Fauna Into Native, Non-native, and Native But Widely Introduced. Adapted from George, 1980

Native To Adirondack Upland

Blacknose dace
White sucker
Longnose sucker
Northern redbelly dace
Redbreast sunfish
Finescale dace
Creek chubsucker
Longnose dace
Slimy sculpin
Lake chub
Common shiner
Round whitefish

Native Species Widely Introduced within the Adirondack Upland [1]

Brook trout
Brown bullhead
Pumpkinseed
Cisco
Lake trout
Creek chub

Non-native to Adirondack Upland

Golden shiner
Chain pickerel
Largemouth bass
Brown trout
Splake
Lake whitefish
Rainbow smelt
Bluegill
Northern pike
Rock bass
Bluntnose minnow [5]
Pearl dace
Smallmouth bass
Yellow perch
Fathead minnow [2]
Rainbow trout
Atlantic salmon
Walleye
Central mudminnow
Redhorse suckers (spp.)
Black crappie
Fallfish [4]
Banded killifish[3]

[1] These native fishes are known to have been widely distributed throughout Adirondack uplands by DEC, bait bucket introduction, and unauthorized stocking. This means that their presence does not necessarily indicate endemicity. Other species listed above as native have been moved from water to water in the Adirondack Upland, but the historical record is less distinct.

[2] Not mentioned by Mather (1884) from Adirondack collections, minor element southern Adirondack Uplands (Greeley 1930-1935).

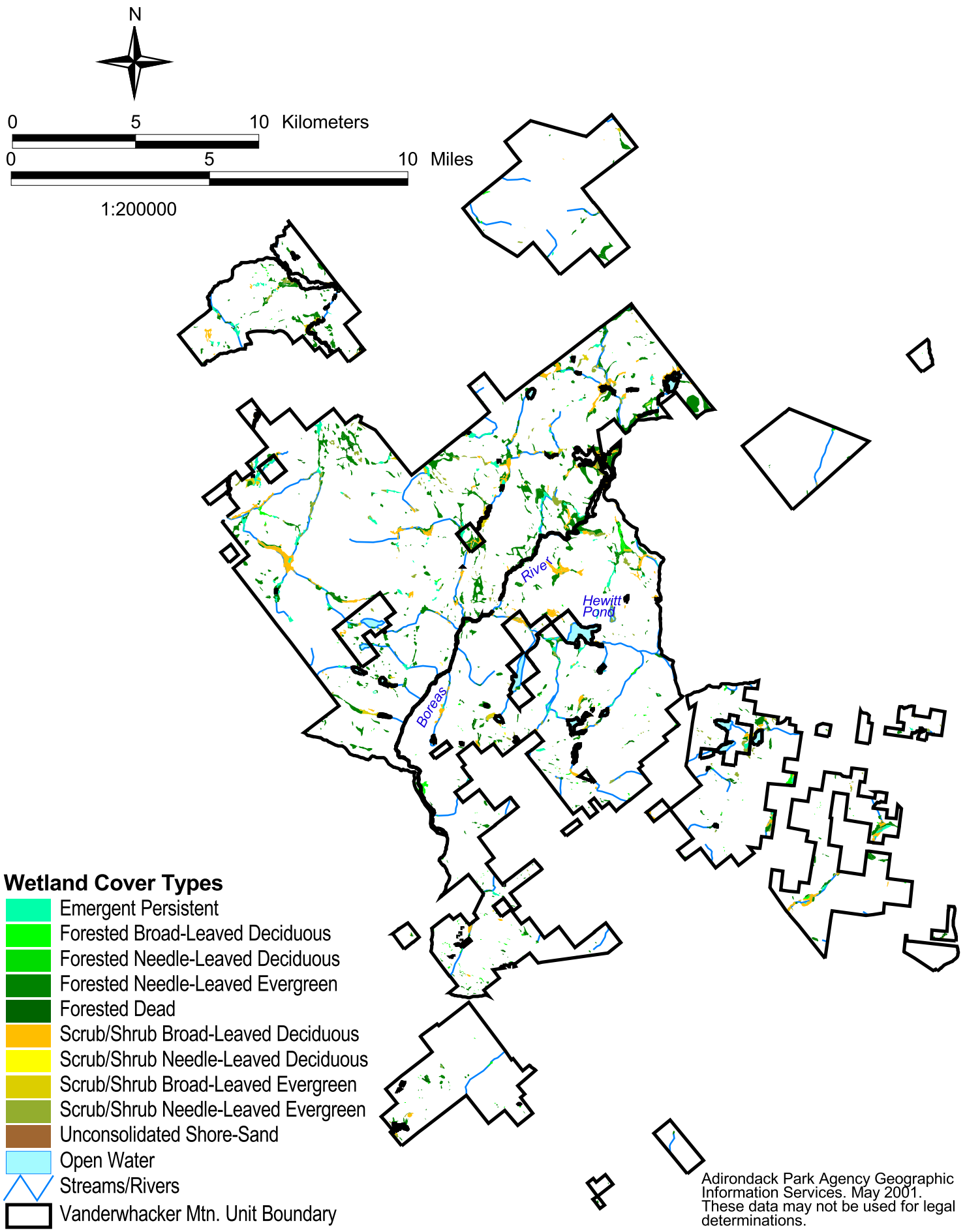
[3] Early collections strongly suggest dispersal as a bait form.

[4] Adventive through stocking.

[5] Not mentioned by Mather (1884) from Adirondack collections, widely used as bait.

APPENDIX C: Wetlands Map

Vanderwhacker Mtn. Wild Forest Wetlands



Wetland Cover Types

- Emergent Persistent
- Forested Broad-Leaved Deciduous
- Forested Needle-Leaved Deciduous
- Forested Needle-Leaved Evergreen
- Forested Dead
- Scrub/Shrub Broad-Leaved Deciduous
- Scrub/Shrub Needle-Leaved Deciduous
- Scrub/Shrub Broad-Leaved Evergreen
- Scrub/Shrub Needle-Leaved Evergreen
- Unconsolidated Shore-Sand
- Open Water
- Streams/Rivers
- Vanderwhacker Mtn. Unit Boundary

Adirondack Park Agency Geographic Information Services. May 2001. These data may not be used for legal determinations.

APPENDIX D: Heritage Program Element Ranks and Significant Natural Communities

Communities and rare species are the "elements" of the Heritage inventory and database. Each community and species element is assigned an "element rank" consisting of a combined global and state rank. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State (The Nature Conservancy 1982). Global ranks for communities are not currently standardized by The Nature Conservancy, so the ranks listed in the community descriptions are estimated global ranks.

GLOBAL RANKS

G1 = Critically imperiled throughout its range due to extreme rarity (5 or fewer occurrences, or very few remaining individuals, acres, or miles of stream) or extremely vulnerable to extinction due to biological factors.

G2 = Imperiled throughout its range due to rarity (6 - 20 occurrences, or few remaining individuals, acres, or miles of stream) or highly vulnerable to extinction due to biological factors.

G3 = Either very rare throughout its range (21 - 100 occurrences), with a restricted range (but possibly locally abundant), or vulnerable to extinction due to biological factors.

G4 = Apparently secure throughout its range (but possibly rare in parts of its range).

G5 = Demonstrably secure throughout its range (however it may be rare in certain areas).

GU = Status unknown.

"?" added to the rank indicates uncertainty about the rank.

STATE RANKS

S1 = Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or especially vulnerable to extirpation in New York State for other reasons.

S2 = Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or very vulnerable to extirpation in New York Sate for other reasons.

S3 = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.

S4 = Apparently secure in New York State.

S5 = Demonstrably secure in New York State.

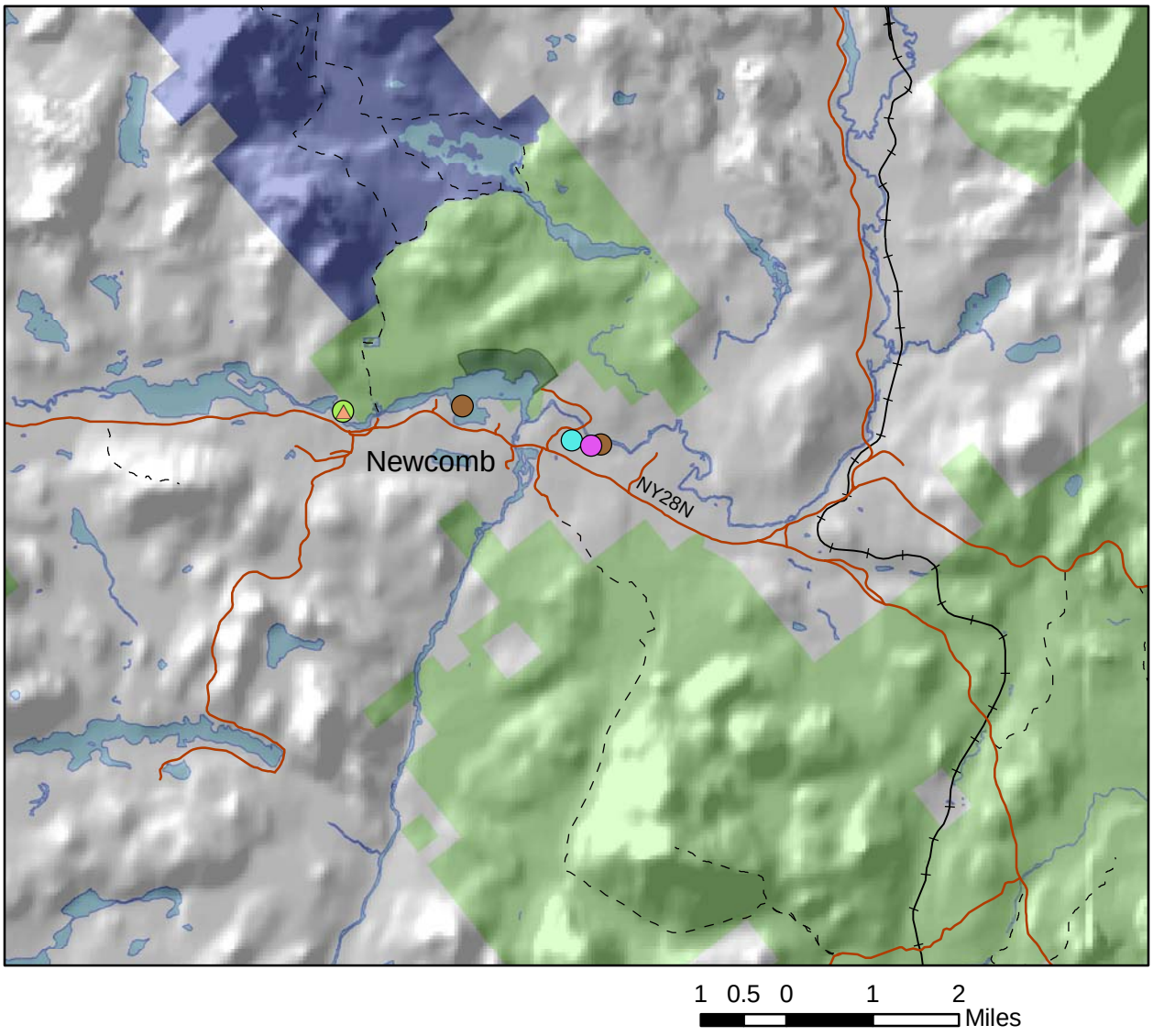
SH = No extant sites known in New York State but it may still exist.

SU = Status unknown.

"Q" added to the rank indicates a question exists whether or not the taxon is a distinct taxonomic entity.

"?" added to the rank indicates uncertainty about the rank.

Significant Natural Communities



High Peaks Wilderness

Vanderwhacker Mtn. Wild Forest

Harris Lake Campground

Santanoni

Water

Road

Trail

Natural Communities

Inland Calcareous Lake Shore

Limestone Woodland

Medium Fen

Northern White Cedar Swamp

Rich Graminoid Fen

APPENDIX E: Wildlife Data

Table 1. Bird species recorded during the Breeding Bird Atlas (BBA) 2000 Project in 44 atlas blocks located within or partially within the Vanderwhacker Mountain Wild Forest. Data were collected from 2000-2003 and are preliminary.

Common Name	Scientific Name	Status
Common Loon	*Gavia immer*	Protected-Special Concern
Pied-billed Grebe	*Podilymbus podiceps*	Threatened
Double-crested Cormorant	*Phalacrocorax auritus*	Protected
American Bittern	*Botaurus lentiginosus*	Protected-Special Concern
Great Blue Heron	*Ardea herodias*	Protected
Green Heron	*Butorides virescent*	Protected
Turkey Vulture	*Cathartes aura*	Protected
Canada Goose	*Branta canadensis*	Game Species
Wood Duck	*Aix sponsa*	Game Species
American Black Duck	*Anas rubripes*	Game Species
Mallard	*Anas platyrhynchos*	Game Species
Ring-necked Duck	*Aythya collaris*	Game Species
Hooded Merganser	*Lophodytes cucullatus*	Game Species
Common Merganser	*Mergus merganser*	Game Species
Osprey	*Pandion haliaetus*	Protected-Special Concern
Bald Eagle	*Haliaeetus leucocephalus*	Threatened
Northern Harrier	*Circus cyaneus*	Threatened
Sharp-shinned Hawk	*Accipiter striatus*	Protected-Special Concern
Cooper's Hawk	*Accipiter cooperii*	Protected-Special Concern
Northern Goshawk	*Accipiter gentilis*	Protected-Special Concern
Red-shouldered Hawk	*Buteo lineatus*	Protected-Special Concern
Broad-winged Hawk	*Buteo platypterus*	Protected
Red-tailed Hawk	*Buteo jamaicensis*	Protected
American Kestrel	*Falco sparverius*	Protected
Merlin	*Falco columbarius*	Protected
Ruffed Grouse	*Bonasa umbellus*	Game Species
Wild Turkey	*Meleagris gallopavo*	Game Species
Virginia Rail	*Callus Limicolae*	Game Species
American Coot	*Fulica americana*	Game Species
Killdeer	*Charadrius vociferus*	Protected
Spotted Sandpiper	*Actitis macularia*	Protected
Common Snipe	*Gallinago gallinago*	Game Species
American Woodcock	*Scolopax minor*	Game Species
Herring Gull	*Larus argentatus*	Protected
Rock Dove	*Columba livia*	Unprotected
Mourning Dove	*Xanadu macroura*	Protected
Black-billed Cuckoo	*Coccyzus erythropthalmus*	Protected
Yellow-billed Cuckoo	*Coccyzus americanus*	Protected
Eastern Screech-Owl	*Megascops asio*	Protected
Great Horned Owl	*Bubo virginianus*	Protected
Barred Owl	*Strix varia*	Protected
Long-eared Owl	*Asio otus*	Protected
Northern Saw-whet Owl	*Aeolus Agaricus*	Protected

Common Name	Scientific Name	Status
Common Nighthawk	*Chordeiles minor*	Protected-Special Concern
Chimney Swift	*Chateura pelagica*	Protected
Ruby-throated Hummingbird	*Archilochus colubris*	Protected
Belted Kingfisher	*Ceryle alcyon*	Protected
Yellow-bellied Sapsucker	*Sphyrapicus various*	Protected
Downy Woodpecker	*Prinoides pubescens*	Protected
Hairy Woodpecker	*Prinoides villosum*	Protected
Black-backed Woodpecker	*Prinoides arcticus*	Protected
Northern Flicker	*Colaptes auratus*	Protected
Pileated Woodpecker	*Dryocopus pleats*	Protected
Olive-sided Flycatcher	*Contopus cooperi*	Protected
Eastern Wood-Pewee	*Contopus virens*	Protected
Yellow-bellied Flycatcher	*Empidonax flaviventris*	Protected
Alder Flycatcher	*Empidonax alnorum*	Protected
Willow Flycatcher	*Empidonax traillii*	Protected
Least Flycatcher	*Empidonax minimus*	Protected
Eastern Phoebe	*Sayornis phoebe*	Protected
Great Crested Flycatcher	*Myiarchus crinitus*	Protected
Eastern Kingbird	*Tyrannus tyrannus*	Protected
Blue-headed Vireo	*Vireo solitarius*	Protected
Warbling Vireo	*Vireo gilvus*	Protected
Philadelphia Vireo	*Vireo philadelphicus*	Protected
Red-eyed Vireo	*Vireo olivaceus*	Protected
Gray Jay	*Perisoreus canadensis*	Protected
Blue Jay	*Cyanocitta cristata*	Protected
American Crow	*Corvus brachyrhynchos*	Game Species
Fish Crow	*Corvus ossifragus*	Protected
Common Raven	*Corvus corax*	Protected
Tree Swallow	*Tachycineta bicolor*	Protected
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	Protected
Bank Swallow	*Riparia riparia*	Protected
Cliff Swallow	*Petrochelidon pyrrhonota*	Protected
Barn Swallow	*Hirundo rustica*	Protected
Black-capped Chickadee	*Poecile atricapillus*	Protected
Boreal Chickadee	*Poecile hudsonicus*	Protected
Tufted Titmouse	*Baeolophus bicolor*	Protected
Red-breasted Nuthatch	*Sitta canadensis*	Protected
Brown Creeper	*Certhia americana*	Protected
House Wren	*Troglodytes aedon*	Protected
Winter Wren	*Troglodytes troglodytes*	Protected
Golden-crowned Kinglet	*Regulus satrapa*	Protected
Ruby-crowned Kinglet	*Regulus calendula*	Protected
Eastern Bluebird	*Sialia sialis*	Protected
Veery	*Catharus fuscescens*	Protected
Bicknell's Thrush	*Catharus bicknelli*	Protected-Special Concern
Swainson's Thrush	*Catharus ustulatus*	Protected
Hermit Thrush	*Catharus guttatus*	Protected
Wood Thrush	*Hylocichla mustelina*	Protected
American Robin	*Turdus migratorius*	Protected
Gray Catbird	*Dumetella carolinensis*	Protected

Common Name	Scientific Name	Status
Brown Thrasher	*Toxostoma rufum*	Protected
European Starling	*Sturnus vulgaris*	Unprotected
Cedar Waxwing	*Bombycilla cedrorum*	Protected
Blue-winged Warbler	*Vermivora pinus*	Protected
Tennessee Warbler	*Vermivora peregrina*	Protected
Nashville Warbler	*Vermivora ruficapilla*	Protected
Northern Parula	*Parula americana*	Protected
Yellow Warbler	*Dendroica petechia*	Protected
Chestnut-sided Warbler	*Dendroica pensylvanica*	Protected
Magnolia Warbler	*Dendroica magnolia*	Protected
Black-throated Blue Warbler	*Dendroica caerulescens*	Protected
Yellow-rumped Warbler	*Dendroica coronata*	Protected
Black-throated Green Warbler	*Dendroica virens*	Protected
Blackburnian Warbler	*Dendroica fusca*	Protected
Pine Warbler	*Dendroica pinus*	Protected
Palm Warbler	*Dendroica palmarum*	Protected
Bay-breasted Warbler	*Dendroica castanea*	Protected
Blackpoll Warbler	*Dendroica striata*	Protected
Black-and-white Warbler	*Mniotilta varia*	Protected
American Redstart	*Setophaga ruticilla*	Protected
Ovenbird	*Seiurus aurocapilla*	Protected
Northern Waterthrush	*Seiurus noveboracensis*	Protected
Mourning Warbler	*Oporornis philadelphia*	Protected
Common Yellowthroat	*Geothlypis trichas*	Protected
Canada Warbler	*Wilsonia canadensis*	Protected
Scarlet Tanager	*Piranga olivacea*	Protected
Eastern Towhee	*Pipilo erythrophthalmus*	Protected
Chipping Sparrow	*Spizella passerina*	Protected
Field Sparrow	*Spizella pusilla*	Protected
Savannah Sparrow	*Passerculus sandwichensis*	Protected
Grasshopper Sparrow	*Ammodramus savannarum*	Protected-Special Concern
Song Sparrow	*Melospiza melodia*	Protected
Lincoln's Sparrow	*Melospiza lincolnii*	Protected
Swamp Sparrow	*Melospiza georgiana*	Protected
White-throated Sparrow	*Zonotrichia albicollis*	Protected
Dark-eyed Junco	*Junco hyemalis*	Protected
Northern Cardinal	*Cardinalis cardinalis*	Protected
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	Protected
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	Protected
Indigo Bunting	*Passerina cyanea*	Protected
Bobolink	*Dolichonyx oryzivorus*	Protected
Red-winged Blackbird	*Agelaius phoeniceus*	Protected
Eastern Meadowlark	*Sturnella magna*	Protected
Rusty Blackbird	*Euphagus carolinus*	Protected
Common Grackle	*Quiscalus quiscula*	Protected
Brown-headed Cowbird	*Molothrus ater*	Protected
Baltimore Oriole	*Icterus galbula*	Protected
Purple Finch	*Carpodacus purpureus*	Protected
House Finch	*Carpodacus mexicanus*	Protected
Red Crossbill	*Loxia curvirostra*	Protected

Common Name	Scientific Name	Status
White-winged Crossbill	*Loxia leucoptera*	Protected
Pine Siskin	*Carduelis pinus*	Protected
American Goldfinch	*Carduelis tristis*	Protected
Evening Grosbeak	*Coccothraustes vespertinus*	Protected
House Sparrow	*Passer domesticus*	Unprotected

Table 2. **Total Calculated Deer Take by Town**[1]

Year	Essex County Town of Minerva	Essex County Town of Newcomb	Essex County Town of North Hudson	Essex County Town of Schroon	Totals
1991	161	151	61	121	494
1992	144	132	105	133	514
1993	132	140	43	123	438
1994	69	78	35	83	265
1995	71	112	40	82	305
1996	77	92	56	79	304
1997	68	99	44	127	338
1998	128	83	53	96	360
1999	100	122	48	94	364
2000	112	109	57	79	357

Table 3. Total Calculated Deer Take by WMU[1]

Year	Wildlife Management Unit 5H	Wildlife Management Unit 5F	Wildlife Management Unit 5G	Total
1998	2139	575	1608	4322
1999	2358	659	1606	4623
2000	2426	749	1617	4792

[1]VMWF is mostly in WMU's 5H, 5F, with a very small part in 5G. In addition, VMWF, most of which can be considered deer range, comprises slightly less than half of the total area of in the four towns of Newcomb, Minerva, Schroon and North Hudson in which the bulk of the unit is situated. Given that the towns of North Elba, Keene, Chester, Indian Lake, and Johnsburg contain little, if any VMWF lands, deer harvest statistics in these towns have not been included.

Table 4. Total Calculated Bear Take by Town[1]

	Essex County Town of Minerva			Essex County Town of Newcomb			Essex County Town North Hudson			Essex County Town of Schroon		
Year	Pre-Season[2]	Regular Season	Total	Pre-Season[2]	Regular Season	Total	Pre-Season[2]	Regular Season	Total	Pre-Season[2]	Regular Season	Total
1991	1	8	9	3	18	21	5	5	10	1	7	8
1992	2	3	5	6	14	20	2	7	9	0	4	4
1993	6	6	12	4	0	4	9	4	13	8	2	10
1994	0	4	4	0	11	11	1	4	5	0	0	0
1995	13	7	20	11	1	12	12	0	12	6	0	6
1996	2	3	5	1	8	9	4	7	11	0	1	1
1997	1	5	6	2	1	3	1	0	1	2	4	6
1998	0	0	0	3	0	3	2	3	5	0	1	1
1999	11	1	12	3	2	5	2	3	5	2	0	2
2000	2	9	11	2	14	16	2	8	10	0	7	7

[1] State lands within VMWF fall mostly in the four towns of Newcomb, Minerva, Schroon and North Hudson in which the bulk of the unit is situated. Given that the towns of North Elba, Keene, Chester, Indian Lake, and Johnsburg contain little, if any VMWF lands, bear harvest statistics bear in these towns have not been included.

[2] Pre-season includes the archery season + the muzzle loading season + the early bear season each of which occurs before the regular season, that which is fixed by law as the next to the last Saturday in October through the first Sunday in December.

Table 5. Pelt Sealing Data for the Essex County towns of Newcomb, Minerva, Schroon and North Hudson

	Beaver	Fisher	Otter	Bobcat	Coyote
1990	163	37	17	3	1
1991	144	16	19	5	13
1992	82	27	15	6	5
1993	167	42	29	2	4
1994	192	20	21	2	4
1995	192	37	18	0	8
1996	221	13	28	1	21
1997	122	77	21	2	21
1998	87	34	16	3	3
1999	164	88	24	0	6
2000	98	66	16	0	2

State lands in VMWF fall mostly within the Towns of Newcomb, Minerva, Schroon, and North Hudson. Given that there is little VMWF acreage in the Towns of Chester, Johnsburg, and Indian Lake, furbearer harvest statistics for these towns have not been included.

Table 6. Reptile and amphibian species recorded during the New York State Amphibian and Reptile Atlas Project located within or partially within the Vanderwhacker Mountain Wild Forest. These data represent species observed during the ten-year span of the project (1990-1999).

	Common Name	Scientific Name
Toads and Frogs:	Eastern American Toad	*Bufo americanus*
	Gray Treefrog	*Hyla versicolor*
	Northern Spring Peeper	*Pseudacris crucifer*
	Bullfrog	*Rana catesbeiana*
	Green Frog	*Rana clamitans*
	Pickerel Frog	*Rana palustris*
	Northern Leopard Frog	*Rana pipiens*
	Mink Frog	*Rana septentrionalis*
	Wood Frog	*Rana sylvatica*
Salamanders:	Spotted Salamander	*Ambystoma maculatum*
	Northern Dusky Salamander	*Desmognathus fuscus*
	Allegheny Dusky Salamander	*Desmognathus ochrophaeus*
	Northern two-lined Salamander	*Eurycea bislineata*
	Northern Spring Salamander	*Gyrinophilus porphyriticus*
	Jefferson Salamander[1]	*Ambystoma jeffersonianum*
	Red-spotted Newt	*Notophthalmus viridescens*
	Northern Redback Salamander	*Plethodon cinereus*
Snakes:	Common Garter Snake	*Thamnophis sirtalis*
	Northern Red-bellied snake	*Storeria occipitomaculata*
	Northern Water Snake	*Nerodia sipedon*
	Eastern Milk Snake	*Lampropeltis triangulum*
	Smooth Green Snake	*Liochlorophis vernalis*
Turtles:	Common Snapping Turtle	*Chelydra serpentina*
	Painted Turtle	*Chrysemys picta*
	Wood Turtle[1]	*Clemmys insculpta*

[1]Special Concern species.

Habitats of amphibians and reptiles observed in the Vanderwhacker Mountain Wild Forest

Frogs and Toads

Eastern American Toad (*Bufo americanus*).-- Although Eastern American Toads can be found in almost every habitat from cultivated gardens to woodlands, they are typically found in moist upland forest. Special habitat requirements include shallow water for breeding (DeGraaf and Rudis, 1983).

Gray Treefrog (*Hyla versicolor*).-- Gray Treefrogs are found in forested areas where they hibernate near the soil surface, tolerating temperatures as cold as -6 degrees C for as long as five consecutive days. Due to the production of glycerol which serves as an antifreeze, gray treefrogs can freeze up to 41.5% of their total body fluids. The frogs breed in both permanent or temporary ponds or wetlands (Hunter, et al., 1999).

Northern Spring Peeper (*Pseudacris crucifer*).-- Northern Spring Peepers inhabit coniferous, deciduous and mixed forested habitat where they typically breed in ponds, emergent marshes or shrub swamps. However, their spring chorus is commonly heard from just about any body of water, especially in areas where trees or shrubs stand in and near water (Hunter, et al., 1999).

Bullfrog (*Rana catesbeiana*).-- Bullfrogs require permanent bodies of water with adequate emergent and edge cover. Their aquatic habitats include shallow lake coves, slow-moving rivers and streams, and ponds (Hunter, et al., 1999).

Green Frog (*Rana clamitans*).-- Green frogs are rarely found more than several meters from some form of water, including lakes and ponds, streams, quarry pools, springs, and vernal pools (DeGraaf and Rudis, 1983).

Pickerel Frog (*Rana palustris*).-- Whether the habitat selected is a bog, fen, pond, stream, spring, slough, or cove, Pickerel Frogs prefer cool, clear waters, avoiding polluted or stagnant habitats. Grassy streambanks and inlets to springs, bogs, marshes, or weedy ponds are favorite habitat choices (Harding, 1997).

Northern Leopard Frog (*Rana pipiens*).-- Although sometimes found in wet woodlands, Northern Leopard Frogs are the frog of wet meadows and open fields, breeding in ponds, marshes, and slow, shallow, vegetated streams (DeGraaf and Rudis, 1983).

Mink Frog (*Rana septentrionalis*).-- Mink frogs prefer cool, permanent water with adequate emergent and floating-leaved vegetation where they feed on aquatic insects and other invertebrates. Here they also hibernate on the bottom in the mud (Harding, 1997).

Wood Frog (*Rana sylvatica*).-- Wood frogs prefer cool, moist, woodlands where they select temporary pools for breeding. However, where vernal pools are absent, wood frogs will breed in a variety of habitats including everything from cattail swamps to roadside ditches (Hunter, et al., 1999).

Salamanders:

Spotted Salamander (*Ambystoma maculatum*).-- The spotted salamander prefers vernal pools for breeding, but its jelly-like globular egg masses are found in a variety of wetland habitats. Because of its fossorial habits, the spotted salamander is rarely encountered except during the breeding season. At that time they can be found under rocks, logs, and debris near the edges of the breeding pools.

Northern Dusky Salamander (*Desmognathus fuscus*) The Northern Dusky Salamander inhabits rocky stream ecotones, hillside seeps and springs, and other seepage areas in forested or partially forested habitat. They are typically found under rocks and other cover objects such as logs adjacent to, or in the water (Harding, 1997).

Allegheny Dusky Salamander (*Desmognathus ochrophaeus*).-- The Allegheny Dusky Salamander is more terrestrial than its congener, the Northern Dusky Salamander, being found under rocks and woodland debris in moist forests usually near a seep or stream.

Northern Two-lined Salamander (*Eurycea bislineata*).-- Northern Two-lined Salamanders inhabit springs and seeps in forested wetlands, edges of brooks and streams, and terrestrial areas many meters from water. They are usually found under rocks, logs, and debris (Pfingsten and Downs, 1989).

Northern Spring Salamander (*Gyrinophilus porphyriticus*).-- Although Northern Spring Salamanders inhabit cool, well-oxygenated streams in forested areas where they can be found under rocks and logs, they sometimes can be found foraging in the open on rainy nights. This species also uses underground springs that are a considerable distance away from their natal habitat (Harding, 1997).

Red-spotted Newt (*Notophthalmus viridescens)* One of the most fascinating life histories of any salamander is that of the Red-spotted Newt, with four stages in its life cycle (egg, aquatic larva, terrestrial immature red eft, and aquatic adult). Interestingly, the red eft remains on land from two (Bishop, 1941) to seven years (Healy, 1974) before they transform into their final life stage, the aquatic adult.

Northern Redback Salamander (*Plethodon cinereus*) The Northern Redback Salamander is found in deciduous, coniferous or mixed forest where it nests in moist, rotten logs. It favors pine logs in advanced stages of decay rather than deciduous tree logs that appear to be more susceptible to molds, thus attributing to possible fungal infections in the eggs (Pfingsten and Downs 1989).

Jefferson salamander (*Ambystoma jeffersonianum*) Jefferson salamanders are considered vernal pool obligates. The salamanders require pools that remain deep long enough to complete metamorphosis. Typical Jefferson salamander breeding pools are ringed with scattered shrub vegetation in upland deciduous forest. Although vernal pools are a limiting habitat parameter for Jefferson salamanders, adults spend a very short period actually using the pools, remaining there only during the breeding season (Pfingsten and Downs, 1989). Consequently, the surrounding forested habitat used during the remainder of the year (including during hibernation) is of utmost importance.

Blue-spotted salamander (*Ambystoma laterale*) The blue-spotted salamander, a species of special concern, is more tolerant of disturbed areas and open habitat than is the Jefferson salamander (Klemens, 1993, Pfingsten and Downs, 1989) . Although blue-spotted salamanders also breed in

temporary pools, they also use a variety of other habitats including roadside ditches, field ponds, and other wetland habitats. Even though blue-spotted salamanders are most often encountered above ground on wet nights, they also are found under cover objects such as fallen logs and debris (Klemens, 1993).

Snakes:

Common Garter Snake (*Thamnophis sirtalis*).-- Garter Snakes are found in a wide variety of habitats including, but not limited to, woodlands, meadows, wetlands, streams, drainage ditches, and even city parks and cemeteries (Conant and Collins, 1998). But large populations of Common Garter Snakes are usually found in moist, grassy areas near the edges of water (Harding, 1997).

Northern Red-bellied Snake (*Storeria occipitomaculata*).-- Although the Northern Red-bellied Snake prefers wetland-upland ecotones, it is found in a variety of terrestrial habitats. This extremely secretive nocturnal species may be found under rocks, logs, bark, and leaves; but if conditions are dry, they are apt to go underground in unused rodent borrows (Mitchell, 1994).

Eastern Milk Snake (*Lampropeltis triangulum*).-- The Milk Snake is the snake of farm outbuildings and barns, taking cover under rocks, logs, firewood, or building materials. Natural habitat includes open woodlands, wetlands, old fields and pastures (Harding, 1997).

Smooth Green Snake (*Liochlorophis vernalis*).-- The Smooth Green Snake is a snake of moist, grassy areas of wetland edges, meadows and old fields, and of deciduous and coniferous woods and woodland ecotones where they feed on insects, their forage of choice (Harding, 1997).

Northern Water Snake (*Nerodia sipedon)*.-- This species is found in many aquatic habitats including lakes, ponds, rivers, and wetlands. Northern Water Snakes prefer fish and amphibians as their primary food source (Mitchell, 1994).

Turtles:

Common Snapping Turtle (*Chelydra serpentina*).-- Snapping Turtles are found in most permanent and semipermanent bodies of fresh and brackish water. Areas that have dense aquatic vegetation with deep, soft, organic substrates and plenty of cover are favored (Mitchell, 1994).

Painted Turtle (*Chrysemys picta*).-- Painted Turtles most often inhabit ponds, lakes, and other slow-moving bodies of water with soft substrates and abundant aquatic vegetation. A critical habitat parameter is adequate basking sites such as logs, rocks, and mats of aquatic vegetation.

Wood Turtle (*Glyptemys insculpta*).-- The Wood Turtle is a semiaquatic turtle that inhabits both the terrestrial and aquatic environment. It favors streams with sandy-pebbly substrates that are deep enough so that they do not freeze during hibernation, are well-oxygenated, and have good water quality. Terrestrial habitat includes a variety of wetlands, upland successional fields, and deciduous woodlands with open areas for basking (Tuttle, 1996).

Table 7. Small mammal species recorded within the Adirondack Park (data based on museum specimens) (Saunders, 1989). Number of towns represents the number of towns in which each species was recorded.

Common Name	Scientific Name	Number of Towns
Star-nosed mole	(*Condylura crestata*)	6
Hairy-tailed mole	(*Parascalops breweri*)	11
Short-tailed shrew	(*Blarina brevicauda*)	31
Pygmy shrew	(*Sorex hoyi*)	1
Long-tailed shrew	(*Sorex dispar*)	7
Smoky shrew	(*Sorex fumeus*)	18
Water shrew	(*Sorex palustris*)	10
Masked shrew	(*Sorex cinereus*)	25
Deer mouse	(*Peromyscus maniculatus*)	26
White-footed mouse	(*Peromyscus leucopus*)	14
Southern red-backed vole	(*Clethrionomys gapperi*)	32
Meadow vole	(*Microtus chrotorrhinus*)	31
Rock vole	(*Microtus pennsylvanicus*)	6
Woodland vole	(*Microtus pinetorum*)	1
Southern bog lemming	(*Synaptomys cooperi*)	12
Northern bog lemming	(*Synaptomys borealis*)	1
Meadow jumping mouse	(*Zapus hudsonicus*)	22
Woodland jumping mouse	(*Napaeozapus insignis*)	25

Small mammals. --The various habitats that occur within the Adirondack Park are home to an impressive diversity of small mammals. These mammals inhabit the lowest elevations to those as high as 4400 feet (Southern bog lemming). Most species are found in forested habitat (coniferous, deciduous, mixed forest) with damp soils, organic muck, or soils with damp leaf mold. However, some species (e.g., hairy-tailed mole) like dry to moist sandy loam soils and others (e.g., white-footed mouse) prefer the drier soils of oak-hickory, coniferous, or mixed forests. Small mammals of the Adirondack region are found in alpine meadows (e.g., long-tailed shrew), talus slides and rocky outcrops (e.g., rock vole), grassy meadows (e.g., meadow vole, meadow jumping mouse), and riparian habitats (e.g., water shrew). It is likely that many, if not most, of the small mammal species listed below inhabit the Vanderwhacker Mountain Wild Forest. An exception may be the Northern bog lemming, a species whose southernmost range extends just into the northern Adirondack Park. Only one recently-verified specimen exists (Saunders, 1989). All listed species are known to occur within the Adirondack Park.

Guidelines for Protection of Deer Wintering Areas

The maintenance and protection of deer wintering areas are important in maintaining deer in the northern portions of their range. Activities which substantially diminish the quality or characteristics of the site should be avoided, but this does not mean human use is always detrimental. Forest stewardship activities (including softwood harvest), pass through trails, and other uses can be compatible with deer yards if they are carefully considered.

The most important characteristic of an Adirondack deer yard is the habitat configuration making up a "core" and travel corridors to and from the core. The core is typically an area, or areas, of dense conifer cover used by deer in severe conditions. Travel corridors can be stretches of conifer cover along river drainages and are dense but narrow components which allow access to food resources in milder conditions. Forest management conditions which afford protection of core sections and avoid fragmenting travel corridors are acceptable in many situations. Certain types of recreation trails such as ski trails or snowmobile trails, particularly if the traffic is not prone to stopping or off trail excursions, are not presently considered to significantly impact deer yards in an overall negative way. These types of trails in or adjacent to deer wintering areas can provide a firm, packed surface readily used by deer for travel during periods of deep snow. They can also create access for free-roaming dogs if the location is close to human habitation; thus, trails should avoid deer yards in these situations. High levels of snowmobile or cross-country ski use can disturb deer and may cause them to run, placing higher energy demands on deer already stressed in winter. The following are some general guidelines to follow for protecting deer wintering areas.

- Maintain a minimum 100 foot forested buffer on either side of streams to protect winter habitat and travel corridors between core yard components.

- Avoid placement of heavily used ski trails through core segments of deer yards to reduce disturbance associated with skiers stopping to observe deer.

- Trails should not traverse core segments of deer yards in densely populated areas such as hamlets, villages, or along roadsides developed with human habitation because they provide access for free roaming dogs.

APPENDIX F: Archeological Sites

Two sites within Vanderwhacker Mtn. WF:

Quadrangle	SHPO# or NYSM#	Site Name	Description: age, cultural affiliation, etc.	Elevation
Olmstedville	A031.08.000029	Minerva Iron Company - mine site	Historical Documentation of site: About 1869 according to Winslow C Watson, History of Essex County "the Minerva Iron Co. commenced measures to establish a first class forge …". In HP Smith's, 1885 History of Essex County he wrote , "The iron industry has received some attention … little ore has been taken out … the character of the ore … has prevented the development of this industry." In 1869 the business was assessed for $2000. By 1874 the assessment was down to $1000. The forge was built on Minerva Stream.	576 m
Tahawus	A031.08.000172	Minerva Iron Mine	Previous owners: Opened 1868 by Rosekrans and JC Durand, then taken over and operated by Burden Iron Co., Troy subsequent to 1881. Idle by 1888. Construction/ occupation: 1868-1888	550 m

Nineteen sites within a 2-mile radius around Vanderwhacker Mtn. WF

Quadrangle	SHPO # or NYSM #	Site Name	Description: Age, cultural affiliation, etc.	Approximate distance from Unit
Chestertown	NYSM 7432	No name provided	Prehistoric Woodland site. Artifacts found: 'piece of pottery, pit, and charred bone, spearhead'. Reported by: James Leary/ 1991	1 ½ mile S
North Creek	NYSM 10297	Fulsom's Landing Bridge Co. Toll House	Historic site (1872-present) Toll House reported by M. Pickands.	2 miles SE
North Creek	A113.06.000030 and NYSM 10295	McCarthy Bros. Martin Bottling Plant	Historic site (1875-1920) Bottling plant for carbonated beverages. Previous owners: DE Mundy Oil Co., Chestertown, NY Rebuilt in 1915 Reported by: Pickands	2 miles SE
North Creek	A113.06.000031 And NYSM 10296	Riverside Station Worker's Housing	Historic site showing foundations of domestic barn (1880-1968) Covered by fill and capped with gravel as a parking lot. Previous owners: D&H Railroad Reported by: Pickands	2 miles SE
North Creek	A113.06.000081	A. Moore Site	19th century historic site. Previous owner: A. Moore, R. Waddell. Artifacts: undecorated whiteware, gray salt-glazed stoneware (Albany slip), buff salt-glazed stoneware (brown slip), flat glass (clear, green and aqua), curved glass(clear, green, and amethyst), bottle glass (olive-green and amethyst), cinder, and coal.	2 miles S
North Creek	A113.06.000082	W. Roblee Site	Complete historic 19th century superstructure site. Previous owner: W. Roblee, J. O'Holland Artifacts: decorated kaoline pipe fragments, black-	2 miles S

Quadrangle	SHPO # or NYSM #	Site Name	Description: Age, cultural affiliation, etc.	Approximate distance from Unit
			glazed redware, stoneware (Albany slip), undecorated whiteware, undecorated pearlware, brown transfer-print whiteware, flat glass(clear and green), curved glass(clear), bottle glass (clear), glass button, coal, slag.	
North River *	A113.06.000014	North Thirteenth Lake	Prehistoric site Artifacts: Levanna-type chert projectile point. Date: 1200-1500 AD	2 miles W
North River *	A113.06.000013	Garnet Mine	No information provided.	1 mile W
Tahawus	A031.10.000039	McIntyre Lower Iron Works	Historic site. Includes part of Tahawus Club building. No other info.	1 mile W
Schroon Lake	NYSM 3292	No name provided	Prehistoric site. Mound? Camp? 'Mound … may be natural but arrowheads found'… camp symbol on Parker map. Reported by Marsh and Parker.	2 miles SE
North Creek	A113.06.000011 and NYSM 5767	HA 78-1	Biface and flakes on knoll above creek valley.	1 mile E
Schroon Lake	NYSM 7520	Sites	Prehistoric sites reported by C. Gillette. No other info.	2 miles SE
Schroon Lake	NYSM 7745	No name provided	Prehistoric site reported by AC Parker as traces of occupation.	1 mile E
Schroon Lake	NYSM 7519	Sites	Prehistoric sites reported by C. Gillette. No other info.	½ mile E
Olmstedville	A031.08.000028	Dougherty Sawmills	Sawmill and shingle mill located near Minerva stream are listed in the Business Directory of 1864 as being owned by John Dougherty. Flume evidence shows where it came down to water wheel.	½ mile E and W
Olmstedville	A031.08.000167	Land Office and Post Office	Site of building which served as Land Office for	1 ½ miles N

Quadrangle	SHPO # or NYSM #	Site Name	Description: Age, cultural affiliation, etc.	Approximate distance from Unit
			Absalom P. Morse from c. 1835, and the Minerva Post Office from 1853 until building was moved to the AP Morse property in 1876.	
Olmstedville	A031.08.000067	Clifford Wheelwright Shop	Historic site. Description of Site as it was reported: Walls without cellar hole. Built c. 1859 by Matthew Clifford. The Wheelwright shop was on the ground floor, the second story was used for furniture building at which Mr. Clifford was proficient. Mr. Clifford was also a coffin maker.	1 ½ miles E
Olmstedville	A031.08.000069	Hill Grist Mill	Grist mill built by William Hill pre 1804.	1 ½ miles E
Olmstedville	A031.08.000068	Alpine Tannery	Built in 1847 by Levi Olmstead.	1 ½ miles E
Mt. Adams	A031.10.000038	Sanford Hill Iron Mine	Historic site (1828-post 1980)	1 mile NW

* Sites are within Siamese Pond Unit.

APPENDIX G: Schroon Lake Snowmobile Trail System

Schroon Lake Snowmobile Trail System

The aforementioned network of snowmobile trails in the Town of Schroon, some of which cross VMWF, is located on the west side of the lake in the area between State Route 9 and Trout Brook Road and from the Hoffman Notch Wilderness Area (HNWA) south to the County line, and contains more than 20 miles of trail. The network uses several roads and trails across public and private land including Thilo, Horseshoe Pond, and Charley Hollow Roads. In years gone by, these three roads served private property, some of which eventually became Forest Preserve. The roads still serve some non-residential private property in addition to VMWF and approximately 3 miles of road/trail border or go through VMWF. In general, these old roads are in mostly fair condition and are used mostly for snowmobiling. Some portions of the road network may also be used in the occasional extraction of forest products from private lands.

In the 1960's, there was a push for the Conservation Department (predecessor to DEC) to identify possible locations for snowmobile trails and to work with local organizations to develop snowmobile trail networks in Essex County. In Schroon Lake, much of the snowmobile trail network was developed on old roads: exceptions are the Horseshoe Pond bypass in VMWF and the North Pond trail in HNWA (personal communication - Howard Lashway). The local snowmobile club, with Town and Department consent, developed the portions on Town Roads, Forest Preserve, and private land. The club has built and maintained bridges, hung signs and performed maintenance throughout the trail network for over 30 years. The snowmobile club also grooms the network.

Specifics for each trail follow:

Horseshoe Pond Road - This 3 mile-long road leads westerly from Charley Hill Road past Horseshoe Pond (secondary reservoir for the Town of Schroon) eventually meeting Hoffman Road. The eastern length of the road serving private land (1.12 miles) is regularly maintained for automobile traffic. The next length (0.08 miles west to the reservoir) may receive intermittent Town maintenance.

The entire length of the road has been a part of the Schroon Lake snowmobile network since the 1960's and was developed for such use in consultation with the Conservation Department.

Horseshoe Pond bypass - This 1.3 mile-long snowmobile trail leads from private land along Horseshoe Pond Road and connects to Charley Hill Road just south of Poplar Hill. Along this route it crosses VMWF for approximately 0.2 miles. The northern ½ mile of trail (including the portion across state land) was developed and built by the Conservation Department in the 1960's to connect with an existing skid trail that lead across private land from Charley Hill Road to a point along the current trail near the state boundary (personal communication - Howard Lashway). It was used for snowmobiling in order to by-pass Horseshoe Pond so that snowmobiles would not have to travel on the frozen pond. This trail was not a Town Road, and appears on current USGS quadrangle maps as a snowmobile trail.

This snowmobile trail has been a part of the Schroon Lake snowmobile network since the 1960's and was partially constructed by and developed in consultation with the Conservation Department.

Charley Hollow Road - This approximately 3 mile-long road leads from Charley Hill Road southwesterly to connect with Wamsley Road in the Town of Minerva. The first 2 miles or so serve private, year-round residential land, and hence are regularly maintained for automobile traffic. The last mile serves Forest

Preserve land, and some non-residential private land. Approximately 0.85 miles of the road crosses VMWF.

The road has been a part of the Schroon Lake snowmobile network since the 1960's, and was developed for such use in consultation with the Conservation Department.

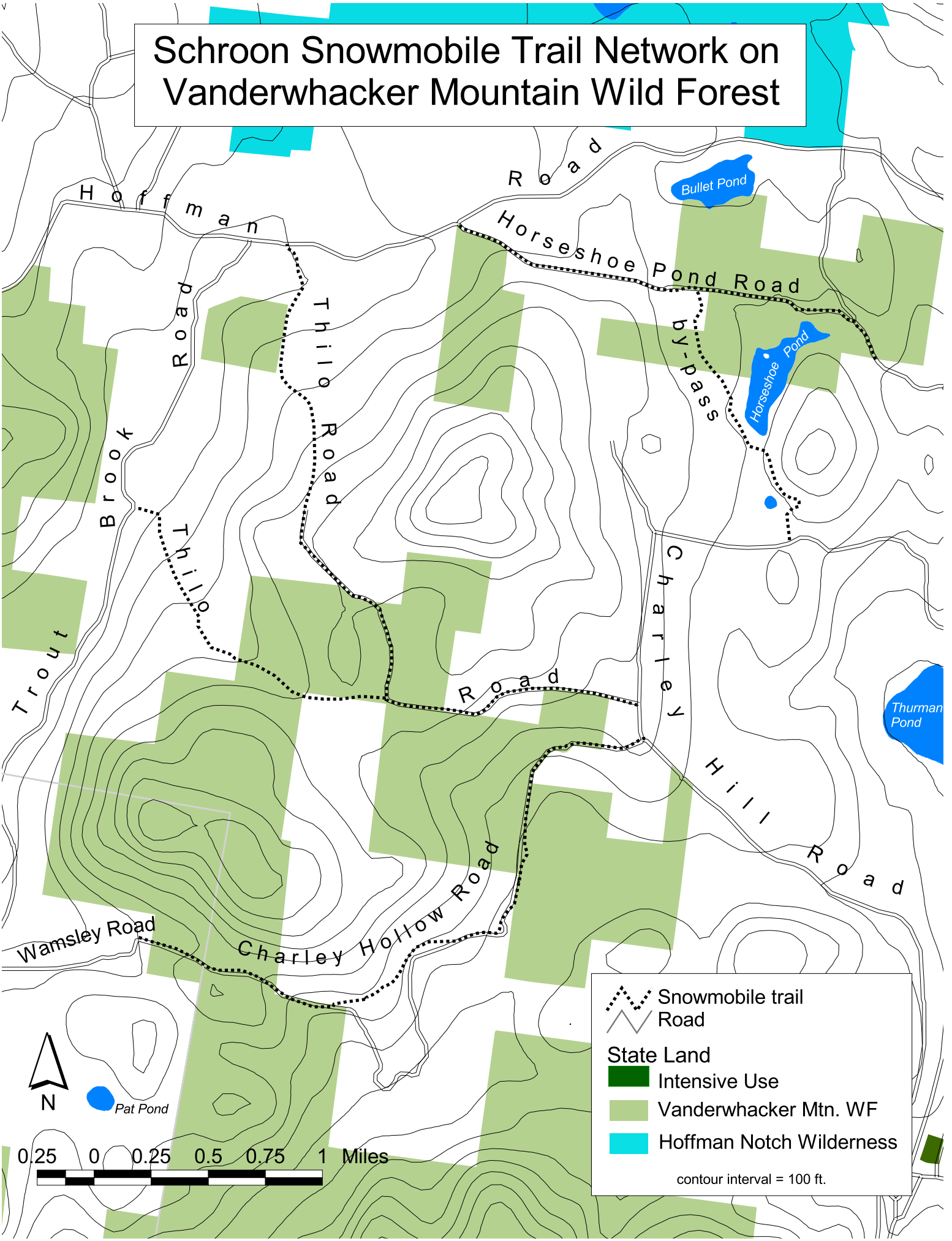
Thilo Road - This road runs westerly from the Charley Hill Road approximately 1.2 miles and splits. From there, one branch heads north for approximately 2.25 miles to Hoffman Road and another branch heads northwest for approximately 1.2 miles to Trout Brook Road.

Approximately 0.75 miles of Thilo Road proper pass through VMWF and another 0.7 miles of the road are bordered by VMWF lands on one side. Approximately 0.35 miles of the northwest branch pass through VMWF and no additional length is bordered by VMWF lands.

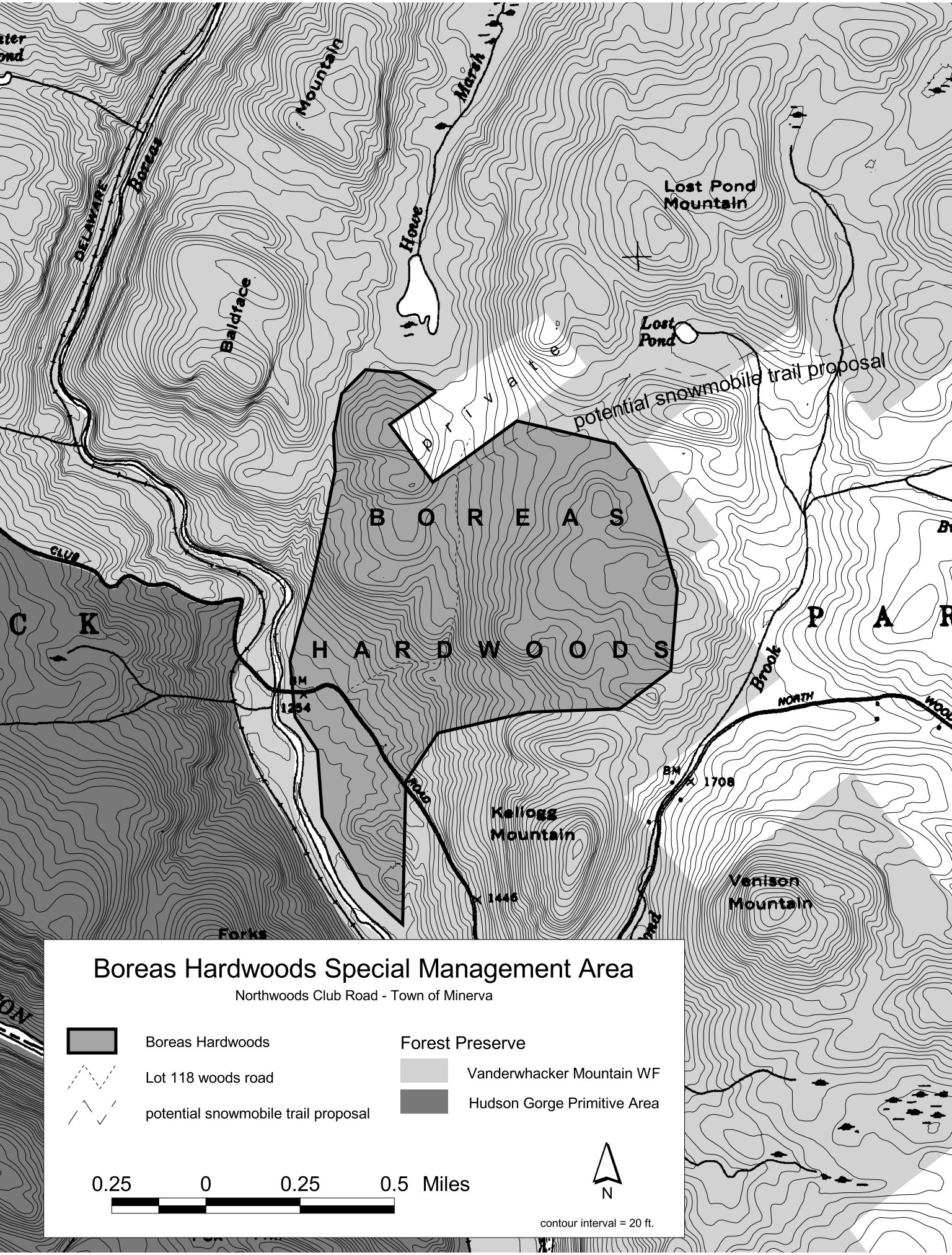
All of Thilo Road and its northwest branch have been part of the Schroon Lake snowmobile network since the 1960's and were developed for such use in consultation with the Conservation Department.

In sum, 3.0 miles of snowmobile trails cross VMWF in the Town of Schroon. Of that total, 2.8 miles were developed in consultation with the Conservation Department in the 1960's. The remaining 0.2 mile trail section is located on Forest Preserve and was built by the Conservation Department in the 1960's. None of these VMWF snowmobile trails have borne DEC Snowmobile Trail signs, because the majority of the network is on private and Town land. For consistency's sake, signage developed by the local snowmobile club was used throughout the network. However, DEC snowmobile markers should be added to the VMWF trail sections. The Department will post "Wild Forest" signs at the point where each trail enters and leaves State Land. Through its use of private, Town, and State property, the overall network is a good example of public/private partnership.

When issues of maintenance of trails across VMWF arise, current DEC policy regarding such work will be followed. The Department may work with the Town and/or local snowmobile club(s), via Adopt-a-Natural-Resource agreement, to determine what work may be necessary and how it shall be accomplished.


Schroon Snowmobile Trail Network on Vanderwhacker Mountain Wild Forest
Hoffman Notch Road
Bullet Pond
Horseshoe Pond Road
Horseshoe Pond by-pass
Horseshoe Pond
Thillo Road
Trout Brook Thillo Road
Charley Hill Road
Thurman Pond
Wamsley Road
Charley Hollow Road
Pat Pond
N
0.25 0 0.25 0.5 0.75 1 Miles
Snowmobile trail
Road
State Land
Intensive Use
Vanderwhacker Mtn. WF
Hoffman Notch Wilderness
contour interval = 100 ft.

APPENDIX H: Boreas Hardwoods Map



Boreas Hardwoods Special Management Area

Northwoods Club Road - Town of Minerva

Boreas Hardwoods

Lot 118 woods road

potential snowmobile trail proposal

Forest Preserve

Vanderwhacker Mountain WF

Hudson Gorge Primitive Area

0.25 0 0.25 0.5 Miles

N

contour interval = 20 ft.

APPENDIX I: Alternatives Discussion: Snowmobile Trails

Snowmobile Trails: The APSLMP allows snowmobile trails in units classified as Wild Forest. The APSLMP defines "snowmobile trail" as:

> *"a marked trail of essentially the same character as a foot trail designated by the Department of Environmental Conservation on which, when covered by snow and ice, snowmobiles are allowed to travel and which may double as a foot trail at other times of the year."*

The APSLMP (Wild Forest, Basic Guidelines (4)) also states that:

> *"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".*

Further, the APSLMP (Wild Forest, Snowmobile Trails) states that:

> *"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 a basis of such new snowmobile trail construction, except in rare circumstances requiring the cutting of new trails;*
>
> *-wherever feasible such replacement mileage should be located in 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 routs on either state or private land are not available or 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.*

Snowmobile trails in the Vanderwhacker Mountain Wild Forest

Proposals for the construction and maintenance of snowmobile trails in the Vanderwhacker Mountain Wild Forest have been made within the spirit of the language above, set forth in the APSLMP. Trail siting goals include the following:

- For safety reasons, trails should be kept off highways (especially major highways) and waterbodies whenever possible.
- Trails should be free of dangerous obstructions, such as trees and boulders.

- Trails must also be sited with environmental considerations in mind:
  - -rare and endangered plant and animal species and their habitats should be avoided;
  - -deer wintering yards should be avoided;
  - -vegetative disturbance should be minimized;
  - -wetlands, areas with poor drainage and steep slopes should be avoided;
  - -tree cutting should be minimized and the trail canopy preserved; and
  - -user group conflicts should be avoided.
- The Department will not place snowmobile trails on private land without the owner's permission. Where an owner of private property agrees to allow a snowmobile trail on their property, the Department should, whenever possible, secure a permanent snowmobile trail easement which binds the owner's successors in title.

Minerva - Newcomb - Alternatives Discussion

Existing Conditions and Assumptions

Despite its position in the center of the Adirondacks, the Town of Newcomb is relatively isolated from the regional snowmobile trail system. Snowmobile access to communities in Essex and Warren counties to the south and east is difficult and extremely roundabout. The town's only connection to the larger regional system is via a single trail leading roughly 15 miles west across private lands to the hamlet of Long Lake, from where snowmobilers can access the Hamilton County system.

From the Town of Minerva, approximately 16 miles southeast of Newcomb, it is equally difficult to access the larger snowmobile trail system. Local snowmobile clubs have established routes to the southeast across private land to connect Minerva to Pottersville in northern Warren County. Once in Pottersville, snowmobilers can access the Warren County trail system to the south. However, snowmobile access from Minerva to communities to the north and west in Essex and Hamilton counties is extremely circuitous. For example, snowmobile access to Newcomb, less than 20 miles away, entails a roughly 175-mile trip by way of Pottersville, Chestertown, Warrensburg, Thurman, Wells, Speculator, Indian Lake (via the lake itself), Inlet, Raquette Lake and eventually to Long Lake and Newcomb.

Snowmobile clubs in the Towns of Newcomb and Minerva, as well as surrounding communities have sought to improve snowmobile access between these communities for the benefit of local residents, as well as tourists. They assert that improving and expanding recreational opportunities in the Adirondack Park, in particular through improved snowmobile trail systems facilitating access between communities, has the potential to improve the economic situation in those communities. They argue not only do opportunities for snowmobiling draw visitors during a season traditionally slow for tourism, they also draw a group apt to spend considerable amounts of money for goods and services like gas, meals, and overnight accommodations. Many local business owners echo these sentiments.

The Department recognizes the assertion by local communities that such an improvement to the snowmobile trail system has the potential to increase economic benefits for local communities. (One need look only as far as Old Forge and Tug Hill). In addition, the establishment of any snowmobile access between Minerva and Newcomb would have to cross state land, by necessity of topography and state ownership of much of the land between the two hamlets.

In evaluating the proposal to improve the snowmobile trail system in this area, the Department must look to the Adirondack Park State Land Master Plan for guidance. As noted above, the APSLMP allows for snowmobile trails within units classified as Wild Forest, such as the VMWF, and prohibits snowmobile trails (with minor exceptions) within units classified as Wilderness or Primitive, which includes the units located directly to the east and west of the VMWF, viz. the Hoffman Notch Wilderness Area and the Hudson Gorge Primitive Area.

Basic guideline 4 of the APSLMP provides that "[p]ublic use of motor vehicles [a term that by APSLMP-definition includes snowmobiles] will not be encouraged and there will not be any material increase in the mileage of... 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." The APSLMP contains the further guidance that "the use of... snowmobiles...will be allowed... on snowmobile trails now **or hereafter designated** by the Department of Environmental Conservation in accordance with basic guideline 4...." [emphasis added]. Evidently, the later "designation" of new trails does not in and of itself violate basic guideline 4, because the APSLMP also provides the guidance that "... the mileage lost in the designation of wilderness, primitive and canoe areas may be replaced in wild forest areas[1]...." The APSLMP contains the further guidance that "...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..." [emphasis added]. The APSLMP then provides examples of snowmobile trails that minimize the "impact on the wild forest environment." These include a provision for "snowmobile trails adjacent to but screened from certain public highways within the Park to facilitate access between communities where alternate routes on either state or private land are not available and topography permits...."

The APSLMP recognizes snowmobiling as an appropriate use in Wild Forest areas, and dictates that snowmobile trails within the Preserve will be of "essentially the same character as a foot trail" and must be consistent with the Wild Forest character of the unit. Additionally, care should be taken to avoid rare plant and animal communities and deer wintering yards when designing snowmobile trails so as to minimize disturbance. Another oft cited concern is the potential for conflict between motorized and non-motorized user groups. Although hard data is unavailable, winter use of VMWF is believed to be low. Much of the current winter use probably comes from snowmobilers. Therefore, the establishment of a through snowmobile trail on VMWF is unlikely to cause significant conflict between user groups, because so few people use VMWF during the winter months. It should also be noted that snowmobiling provides persons with disabilities with a means of accessing State lands during periods of snowcover. Thus, VMWF provides the Department with an opportunity to provide for such access.

When considering snowmobile routes, criteria must be developed to guide a decision. Obviously, the two main criteria to consider are environmental degradation and rider safety. At times these two are at odds with one another. For example, the least environmentally destructive route is to follow the shoulder of the road connecting the two hamlets, but this route is also the most hazardous. Therefore, a balance must be struck between the two criteria by keeping travel along state highways to a minimum, avoiding areas of rare and endangered plant and animal species and habitats, avoiding deer wintering yards (See Appendix E, Guidelines for Protection of Deer Wintering Areas), incorporating existing snowmobile trails and other motorized vehicle routes where possible, incorporating other types of trails where possible, and minimizing new trail construction.

In some parts of the Park, it is not uncommon to have a segment within a road's right-of-way designated as a snowmobile trail. However, as mentioned above, the main reason why, in this case, it would not be appropriate is safety. The existing motor vehicle connection between the two hamlets, Route 28N, is a major 55 mile-an-hour state highway, which is often quite narrow and winding with short sight distances. In particular, the section between 29th Pond and the hamlet of Minerva is quite steep and twisting in spots,

[1]The adoption of the APSLMP in 1972 resulted in, among other things, the closure of roughly 17.5 miles of snowmobile trails in the newly designated Hoffman Notch Wilderness Area and the closure of roughly 2.3 miles of snowmobile trail within the newly designated Hudson Gorge Primitive Area.

so as to require large, heavy vehicles to slow to speeds below 25 mph. Safety considerations obviously prohibit portions of the road from being designated as snowmobile trail.

That section of the Boreas River which extends from its confluence with the outlet of Cheney Pond downstream for approximately 11.5 miles to its confluence with the Hudson River has been designated as a Scenic River by ECL §15-2713(2)(c). The river and its "river area" (½ mile on either side of its banks) are consequently protected by the Wild, Scenic, and Recreational Rivers legislation (ECL Article 15, Title 27) and its implementing regulations (6NYCRR Part 666). This Scenic River classification furnishes another challenge in finding a suitable site for a snowmobile trail. The APA has jurisdiction over private land within the Scenic River corridor (9 NYCRR Part 577). The Department has jurisdiction over public land within the corridor (6 NYCRR Part 666).

As previously stated, no snowmobile route currently provides access between the hamlets. There are, however, a number of disjointed, underutilized snowmobile trails across VMWF in the general area between the hamlets. It may make sense to incorporate some of them into a trail facilitating access between the hamlets, if possible. Other things to consider are possible starting and ending points in the two hamlets. In Newcomb, there are few places where the public can access state land from the hamlet without crossing several private parcels of land. Currently, snowmobiles travel from the west to the east side of the hamlet via Harris Lake State Campground and the lake itself and then follow Campsite Road out to its intersection with Route 28N. There are two alternative snowmobile trail routes which lead from this intersection in a southerly direction towards Minerva. The first heads out from Campsite Road heading east across private property (mainly lands owned by Finch, Pruyn & Company, Inc., the Open Space Institute, and the Town of Newcomb) and hooking in with Route 28N on the outskirts of the hamlet, then following the Delaware and Hudson railroad tracks south, conceivably as far as Moose Pond Road. The second alternative for leaving the Campsite Road/Route 28N intersection would use Chaisson Road through to the Vanderwhacker Snowmobile trail, also to Moose Pond Road.

At the Minerva end of the proposed trail, no State land borders a town road near the Minerva hamlet center. The closest spots where State land borders a town road are John Brannon Road and Hoffman Road (via Cheney Pond Road). From either of these two roads it is possible to reach Longs Hill Road and then the Olmstedville-Minerva Road which then leads to the Minerva hamlet center.

For safety reasons, it is more desirable to site a trail starting directly at the Minerva hamlet center rather than first traversing town or county roads. It may be possible to site the beginning of a new trail near the hamlet center across private and state land to meet up with the Stony Pond trail, as described in detail below. If the private property owner were to agree, this alternative would be preferable to the Cheney Pond-Irishtown trail in terms of proximity to the hamlet center and reducing the use of town roads.

Siting Alternatives

The following is a discussion of alternative snowmobile trail routes, which would serve to facilitate snowmobile access between the Hamlets of Newcomb and Minerva. Since any trail providing access between the hamlets has to traverse a variety of terrain, each of the alternatives proposed will be described and analyzed as a series of shorter, distinguishable trail segments. The different alternatives often share some of the same segments but in different combinations with the goal of connecting the same points. In each alternative, the segments are listed as they would be traveled from Newcomb to Minerva. A discussion of the positive and negative aspects of each trail segment follows the brief alternative descriptions. Following the segment discussion is a discussion of the alternatives routes

employing various segment scenarios. For each alternative there is a discussion of safety considerations for the snowmobilers with respect to trail choice and a discussion of the relevant adverse impacts and associated mitigation measures.

With respect to deer yarding locations discussed in the analysis that follows, the Department has relied on locations of historical deer yards as mapped from the air by the Conservation Department in the 1960's and a GIS Model for Potential Deer Yard Habitat in the Adirondack Park developed in 2004 by SUNY ESF's Adirondack Ecological Center in Newcomb (AEC), as well as on on-the-ground evidence observed by DEC staff during the development of this UMP. The AEC model uses elevation and vegetation cover type to identify areas of potential deer yarding. Elevation and slope ranges in the AEC model were chosen based on historic deer yards, deer yard data collected in 2004 and deer locations based on telemetry data in 2003 and 2004 in the central Adirondacks (SUNY ESF).

Some of the proposed snowmobile trail segments involve trails across private property. As noted above, the Department will not locate snowmobile trails on private property without landowner permission. The segments across private property are only included in this discussion because, for the most part, the owners have informally indicated a willingness to consider trails on their properties. Again, formal agreement with these owners would have to be made before any trail was constructed across their respective properties.

The alternatives are summarized below. (See accompanying maps at the end of this appendix).

Alternative A

- Vanderwhacker snowmobile trail (currently closed)
- Moose Pond Road
- new trail parallel to State Route 28N
- [Hewitt Pond foot trail]*
- Stony Pond snowmobile trail
- Minerva woods road

*The Hewitt Pond foot trail is noted in brackets because this alternative could be formed with or without this segment.

Alternative B

- private property in Newcomb
- D&H Railroad tracks (from Blue Ridge Rd to as far as 28N or Moose Pond Road)
- [Moose Pond Road]*
- new trail parallel to State Route 28N
- [Hewitt Pond foot trail]*
- Stony Pond snowmobile trail
- Minerva woods road

*The Moose Pond Road and Hewitt Pond foot trail segments are noted in brackets because this alternative could be formed with or without them.

Alternative C

- Vanderwhacker snowmobile trail (currently closed)
- Moose Pond Road
- D&H Railroad tracks (south to their intersection with Northwoods Club Rd.)

- Northwoods Club Road to Route 28N via state land
- Stony Pond snowmobile trail
- Minerva woods road

Alternative D
- private property in Newcomb
- D&H Railroad tracks (from Blue Ridge Rd to Northwoods Club Road)
- Northwoods Club Road to Route 28N via state land
- Stony Pond snowmobile trail
- Minerva woods road

Alternative E
- Vanderwhacker snowmobile trail (currently closed)
- Moose Pond Road (as far as the D&H Railroad tracks)
- D&H Railroad tracks (north to 28N)
- a short segment parallel to State Route 28N
- Roosevelt Truck Trail
- Cheney Pond snowmobile trail

Alternative F
- private property in Newcomb
- D&H Railroad tracks (as far as Route 28N)
- a short segment parallel to State Route 28N
- Roosevelt Truck Trail
- Cheney Pond-Irishtown snowmobile trail

Alternative G
- north end of Old Military Road
- south end of Old Military Road
- Stony Pond snowmobile trail
- Minerva woods road

Alternative H
- Vanderwhacker trail (currently closed)
- Moose Pond Road
- west of D&H Railroad tracks
- Northwoods Club Road to Route 28N via state land
- Stony Pond snowmobile trail
- Minerva woods road

Alternative I - No-Action Alternative
Do not establish a snowmobile trail across Forest Preserve for the purpose of facilitating access between the hamlets of Newcomb and Minerva. Keep the Vanderwhacker Snowmobile Trail closed to snowmobiles. The only connecting trail possible if the No-Action Alternative is pursued is one within the Route 28N right-of-way.

Evaluation of Segments

Delaware and Hudson Railroad Tracks

The D&H railroad bed could provide a route between Tahawus Road in Newcomb and Northwoods Club Road in Minerva.

pros -essentially the route already exists and would require no work to lay out or construct, thereby requiring no further vegetation removal and no construction in wetlands
-would require no tree cutting
-current public use of the corridor is restricted, therefore little potential for user group conflicts exists if it is designated for snowmobiles
-environmental degradation due to overuse is unlikely
-no known endangered or threatened plants or animals

cons -requires more snow (probably 6" to 12" more than on trail over bare ground), to cover rails fully; therefore season of use is potentially shorter
-would require agreement with Essex County IDA and/or the Open Space Institute (OSI)
-would require assumption of liability by town(s), county, and/or state government(s) or local snowmobile club
-the length from Moose Pond Road to Northwoods Club Road may require a permit under Wild, Scenic, and Recreational River Systems Act from the APA or DEC
-safety concerns due to the rails themselves (sleds would have to travel between rails along much of the route; steep sides in some places; bridges would need railings and decking to lessen danger)
-some in the county are interested in operating a tourist railroad on the tracks and may be opposed to tearing up ties and tracks for the sole purpose of making it safer for snowmobiles
-no known deer yards, but the AEC GIS model identifies large areas along Vanderwhacker Brook as potential deer yard habitat

discussion - Overall, this segment is a good option, because it is an established travel corridor, covering a large portion of the distance between the two hamlets, thereby avoiding tree cutting and wetlands disturbance on VMWF lands for this distance. Furthermore, railroad corridors have served quite well as snowmobile trails in other parts of the park, including a stretch of the D&H line through Stony Creek, Thurman, and Johnsburg to the south in Warren County.

As a railroad corridor, it obviously has good sight distances and was designed to be fairly level. To achieve this level grade, a great deal of fill was used, which had the result of raising the tracks well above the surrounding lands along some stretches. In a few places, the tracks are quite high, creating steep slopes down to the original grade. These areas present potential safety hazards that could be lessened through signage and/or even the removal of the rails themselves. There is some concern that in these locations, during low snow conditions it may be difficult to manouevre a snowmobile out from between the rails to avoid a trail hazard or pull to the side of the trail to allow an oncoming snowmobile to pass. Some snowmobilers have also expressed concern that a snowmobile's skid or track could momentarily catch on a rail or rail joint, causing a loss of control. If the rails were removed, the potential safety hazards would be greatly lessened. Furthermore, the addition of decking material on bridges is recommended to improve snow retention and safety. The addition of guard railings could also make bridge crossings safer.

With the recent sale of the Tahawus property it is hard to predict what will happen with the railroad corridor, but some have speculated that the tracks may be removed and salvaged for scrap. With the tracks removed, the route would be greatly improved for snowmobile travel between the hamlets.

The "scenic" designation of the Boreas River along the stretch between Moose Pond Road and Northwoods Club Road may require an APA or DEC permit in order to designate this length of the tracks as a snowmobile trail. However, in at least one other place in the Adirondack Park, an approved UMP permits snowmobile use of a railroad in a "scenic" river corridor. The Remsen - Lake Placid Travel Corridor UMP permits snowmobile use in the section of the corridor that crosses the designated "scenic" Moose River in Herkimer County. In that case, an APA permit was not required.

The AEC GIS model identifies as potential deer yard habitat a large area along the railroad corridor, beginning south of the confluence of Vanderwhacker Brook and the Boreas River and extending north to Kay's Place and beyond. According to the GIS model, the railroad corridor is near the western edge of a very large area of more than 30 square miles of potential habitat in the surrounding area. This suggests that an increase in snowmobile use of the tracks may not greatly impact deer yarding habitat, since there is a great deal of potential habitat in this area. Furthermore, the tracks themselves are likely not used for yarding, probably for several reasons, but most obviously because they are devoid of any tree cover.

West of Railroad Tracks

The route would start from the Moose Pond Road approximately 1 mile east from where it crosses onto private property, and head generally south to meet up with the Northwoods Club Road. Along the way, it would cross the outlet of Fish Pond approximately 1 mile upstream from its confluence with the Boreas; then continue on to cross Grassy Pond outlet approximately 3/4 of a mile upstream from its confluence with the Boreas; then continue on to cross Hotwater Pond outlet within a few hundred feet east of the pond itself and continue to Northwoods Club Road

pros -could serve as a multi-season trail to Hotwater Pond, Grassy Pond, and possibly Nate Pond

cons -4 miles of completely new trail, not preferred according to APSLMP
-due to topography and wetlands, the trail will come close to Burroughs Cave, a locally rare habitat, that could be negatively impacted by overuse
-could traverse potential deer yard habitat in the area northeast of Grassy Pond towards Buck Mountain

discussion -The purpose of this route is to find a connection between Moose Pond and Northwoods Club roads which avoids the Boreas Scenic River corridor, private property, and safety issues associated with the railroad track route. However, this route raises other issues. Four miles of completely new trail would have to be cut, as no abandoned woods roads achieving the above mentioned purpose are known to exist. The APSLMP states that "existing roads or abandoned wood roads... [will form the basis of] new snowmobile trail construction, except in rare circumstances requiring the cutting of new trails." Also, the trail passes near Burroughs Cave. The Department does not wish to encourage public use of the cave for safety reasons and because it provides a locally rare habitat type for both plants and animals and is the only known bat hibernaculum on VMWF. Therefore, this segment is not a practical alternative.

Northwoods Club Road and on to Route 28N via state land

The road leads from the state property line with the Northwoods Club out to State Route 28N; a distance of approximately 7 miles (approximately 5 miles of which on the western end provide direct access to state land). It is a wide (approximately 16-20'), dirt road, providing one of the few bridges across the Boreas River in the area.

pros -uses existing road, therefore less potential for tree removal
-uses existing vehicle bridge across the Boreas River; preferred under Wild, Scenic, and Recreational River Systems Act
-leads very close to Stony Pond snowmobile trail
-no known endangered or threatened plants or animals in vicinity
-proposed segment does not pass through any known deer wintering yards
-low potential for user group conflict

cons -would require approximately 2 miles of new trail construction
-the 2.0 miles of new trail has the potential to go through wetlands for short distances, permits may be necessary; any potential impacts will be mitigated through the permitting process
-of that 2.0 miles of new trail construction, approximately 0.2 miles would be in "Boreas Hardwoods" (see page 65, for description).
-may require a permit under Wild, Scenic, and Recreational River Systems Act, because it requires use of the railroad tracks
-road is plowed for access to Northwoods Club
-AEC GIS model indicates potential deer yard habitat in the area
-Northwoods Club members may resist use of this road

discussion - Northwoods Club Road leads to Route 28N, but there is no state land frontage close by. Therefore, use of this segment requires leaving the Northwoods Club Road 1/4 mile east from where it crosses the Boreas River, and following a woods road (a.k.a. Lot 118 woods road) that leads north to a private inholding. From the end of the Lot 118 woods road on state land, new trail would have to be constructed leading generally eastward out to Route 28N near the beginning of the Stony Pond snowmobile trail. The route would require approximately 2 miles of new trail construction. Use of this route is dependent on use of the railroad tracks between Moose Pond Road and Northwoods Club Road or the West of Railroad Tracks route between the two roads. Additionally, even though Northwoods Club Road is plowed, it is not heavily used in winter, and sleds would travel along it for less than ½ mile.

The owners of the Northwoods Club may resist use of this segment because of a concern that vandalism may occur on their property as a result of increased snowmobile traffic on Northwoods Club Road. However, snowmobile use would occur on a ½-mile section of Northwoods Club Road that is roughly four miles distant from the entrance to the Northwoods Club property. Furthermore, Northwoods Club Road is plowed in winter; therefore making it unlikely that snowmobilers would wish to continue west along the plowed road beyond its intersection with the railroad tracks.

The 0.2 miles of new trail construction in "Boreas Hardwoods" would be on the extreme northern periphery of the Special Management Area and care would be taken to locate the trail so as to prevent the overuse or destruction of the area. However, environmental degradation due to overuse is a potential problem. If selected, the new trail will conform to existing guidelines for DEC Snowmobile Trail Maintenance and Construction. Before work proceeds, DEC would apply for the appropriate permits and submit tree removal tallies, if appropriate. The Department would carefully monitor the effects of this proposed trail and take whatever steps necessary to protect the Special Management Area.

The AEC GIS model indicates areas of potential deer yard habitat along this section. Department staff inspected the area in 2000 and 2001 for overall suitability as a snowmobile trail, and observed few signs of winter deer use. Some signs of light browsing were observed in the area to the west of the Lot 118 woods road in a small stand of large-diameter hemlocks, and no significant signs were observed between Lot 118 and 28N. If this segment is used, staff will field verify for use of the area by wintering deer, and relocate the trail to avoid significant impacts to deer, if necessary.

The potential for user group conflict is low for this segment. There may be some conflict with automobiles along the short section of Northwoods Club Road crossing the Boreas River, but this should be infrequent given the season of snowmobile use. The other sections of the route (Lot 118 woods road and the new trail construction) also have a low potential for user group conflict, because it will not be a destination-type trail and as such, will probably not receive much non-motorized winter use.
This section is considered a good alternative, as it requires only 2 miles of new trail on Forest Preserve across relatively dry ground, to connect with the Stony Pond snowmobile trail at Route 28N.

Vanderwhacker trail (currently closed)
This interior snowmobile trail, formerly a jeep trail, provides a scenic route that starts from private property at the end of Chaisson Road in Newcomb and leads to the Moose Pond Road in Minerva. The trail is currently gated at its northern end and blocked by boulders at its southern end. As a result of inappropriate maintenance work performed on this trail in 1998, the Department and APA signed an Order of Consent which resulted in the Department remedying damage to wetlands at 14 separate sites. The Department also agreed to close the trail until and unless it was reopened through the unit management planning process. (See discussion of past management on page 62).

pros -existing trail requiring no additional tree cutting
-no known endangered or threatened plants or animals in vicinity
-trail currently experiences very little non-motorized winter use; low potential for user group conflict

cons -traverses at least 14 identified wetlands locations
-AEC GIS model indicates potential deer yard habitat along portions of the trail in the softwood wetlands north of Vanderwhacker Mountain along the North Branch of Wolf Creek
-does not connect state land directly to a town road in Newcomb (1 mile across private property to reach state land from Chaisson Road)

discussion - Snowmobiles generally cross wetlands under frozen conditions and will be unlikely to cause further degradation. Furthermore, 6 NYCRR Part 196.2(a) provides that snowmobiles may be used on designated trails "when the trail traveled is completely covered by snow and ice." Due to the increased use that would result from its designation as part of a "through" trail, it would be recommended to lay geo-textile fabric along sections of the trail deemed sensitive and place suitable fill material above. APA wetlands permits would be required before such work may be undertaken. Bridges could also be placed, where appropriate, to protect wetlands and streambanks. The GIS model indicates potential deer yard habitat along portions of the trail in the extensive softwood wetlands north of Vanderwhacker Mountain along the North Branch of Wolf Creek. However, the model indicates a relatively large area of potential habitat in this area, connected to other large areas of potential deer yard habitat up and down the Hudson River, suggesting that an increase in snowmobile use of this trail may not greatly impact deer yarding habitat, since there is a great deal of potential habitat in this area..

As for the private parcel on Chaisson Road, the new owner has been approached and is amenable to routing a snowmobile trail through it. Therefore, this segment is considered a workable alternative.

Northern half of the so-called "Old Military Road"

The trail leaves the Vanderwhacker snowmobile trail approximately one mile south from where it enters the unit in the town of Newcomb. From there it leads south around the east side of Vanderwhacker Mountain and connects to the Moose Pond Road about a ½ mile west of the Railroad tracks. The northern two-thirds of the trail show no evidence of use or maintenance in the last 50-100 years and is overgrown in many places with American beech saplings, but much of it has been located. The southern 1/3 of the trail has been used as recently as 5 years ago, but is also overgrown in some spots.

pros -approximately 70% of trail still exists; few trees larger than 5" dbh would have to be cut
-trail provides a relatively (compared to the west side) drier way around Vanderwhacker Mountain.
-no known endangered or threatened plants or animals in vicinity

cons -approximately 30% would have to be newly constructed, much of it on the northern end, in the wetlands around the Vanderwhacker trail
-the other 70% would need significant clearing and brushing; furthermore drainage work would be required for much of its length as the trail has wet areas
-AEC GIS model indicates potential deer yard habitat along the north end of the road in the softwood wetlands north of Vanderwhacker Mountain

discussion - To complete the work that snowmobile use of this trail requires is quite possible, albeit likely more time consuming and expensive than some of the other alternatives. This trail segment has been considered as an alternative to the Vanderwhacker trail, and does avoid the wetlands associated with the main branch of Wolf Creek and heads over drier ground on the east side of Vanderwhacker Mountain. However, it does not avoid the wetlands of the north branch of Wolf Creek, and in fact, use of this trail is dependent upon completely new construction in this area, as evidence of the old road has long since disappeared. Use of this trail is also dependent upon use of two miles of the Vanderwhacker trail at its northern terminus. Therefore, it does not make sense to propose designation of the northern portion of the "Old Military Road" as a substitute for the Vanderwhacker trail.

Southern half of "Old Military Road" (or "Old Moose Pond Club Road")

The southern portion of this old road leads from a point approximately, ½ mile west along the Moose Pond Road from where its northern portion meets that road. It follows a stream down to the Boreas River. From this point it crosses the river and continues generally southeast towards Balfour Lake. Upon reaching the western shore of the lake it turns south and eventually back to Route 28N near the southern end of the lake.

pros -similar to northern half of the Old Military Road
-could also be used to provide for a nice nordic ski trail loop involving the Moose Pond Road and the existing Boreas River loop trail
-leads very close to Stony Pond snowmobile trail

cons -similar to northern half of the Old Military Road
-requires bridge across Boreas and a permit due to "scenic" classification, if allowed at all
-this is not the best location for a bridge
-may encourage unwanted snowmobile use of Balfour Lake
-northern portion of road has all but disappeared
-lack of maintenance over the last 100 years
-AEC GIS model indicates potential deer yard habitat along portions of the old road in the Boreas River valley as well as in the Rankin Pond outlet drainage.

discussion - The southern portion of the road was still in private ownership as recently as 15 years ago and in all likelihood, was used in removal of forest products within the last 25 years. Consequently, it is still in fair condition. However, the state of the middle section of this road is much like that of the northern half of the Old Military Road -- discernible along much of its route, except in low-lying and wet areas. Furthermore, in at least one stretch, the roadbed is 2 or 3 feet lower than the surrounding ground, due to erosion over the years. Along this stretch, it would be advisable to avoid the old road in placement of any snowmobile trail. This road was built long before the railroad tracks and hence a river crossing one hundred years ago over the Boreas River at this spot may have worked well. However, a new crossing at this spot would require a major bridge. The stretch between the railroad tracks and the Moose Pond Road has all but disappeared. This route connects the Moose Pond Road to the Stony Pond snowmobile trail, crossing two parcels of private property (the railroad tracks and the summer camp Baco). It is quite possible to avoid the summer camp property by constructing new trail across Forest Preserve. However, it is impossible to avoid crossing the railroad tracks. This route also avoids running a snowmobile trail alongside the State Highway 28N for much more than a few hundred yards to connect with the Stony Pond- Irishtown snowmobile trail. For reasons of topography, a trail around the south end of Balfour Lake will come quite close to private property, which may be opposed by owners of the summer camp (the concerns being possible harassment of campers by summer users and vandalism by winter users). In light of the above discussion, this segment is considered workable, yet it possesses a number of complicated negatives. These cons are surmountable, but better alternatives exist.

Moose Pond Road

The road leads from the state property line with the Moose Pond Club out to State Route 28N; a distance of approximately 4 miles (all of which is on state land). It is a wide (approximately 16'), dirt road that is not plowed. It provides a bridge across Vanderwhacker Brook. If 28N, the D&H railroad, and/or the Vanderwhacker trail are used in the overall trail, Moose Pond Road could serve as a way to connect any or all of them.

pros -existing road, would not require any tree cutting, clearing of vegetation, or construction in wetlands
-existing vehicle bridge over Vanderwhacker Brook
-no known endangered or threatened plants or animals in vicinity
-low potential for user group conflict

cons -concern from adjacent landowners about vandalism
-AEC GIS model indicates potential deer yard habitat along the eastern half of the road

discussion This road is an ideal location as a segment of the trail between the hamlets, because it is an existing, unplowed road over state land. In fact, it already sees occasional snowmobile use during the winter months, presumably from Moose Pond Club members and their guests accessing the private inholding. The AEC GIS model suggests that since there is a great deal of potential deer yard habitat in a large area extending from the Boreas River and continuing well north of the road, an increase in snowmobile use of the tracks may not greatly impact deer yarding habitat.

The Moose Pond Road is infrequently used by nordic skiers and other winter users, so the potential for user group conflict is low. In addition, there are no private ownerships along the portion in question. However, it is important to remember that use of this road may require use of one or more of the less savory segments listed in this overall discussion. In light of the above discussion, this segment is considered workable.

Roosevelt Truck trail

The truck trail is essentially a gated road that runs for 2.5 miles from 28N north to the Blue Ridge Road, not far from Vanderwhacker Brook. The road is in good condition including a vehicle bridge, but is currently open to administrative motor vehicles only. To ready the road for snowmobile use would only require some brushing and clearing out of any blowdown that may exist. It is presumed that current use by the public is limited to hunting access and nordic skiing.

pros -requires only brushing and clearing of blowdown to open to snowmobile use
-roads are preferred for location of snowmobile trails according to APSLMP
-no known endangered or threatened plants or animals in vicinity

cons -requires building approximately 1.5 miles of new trail; may require some tree removal and trail construction in wetlands
-AEC GIS model indicates potential deer yard habitat in the area
-roundabout location

discussion -The truck trail is well-suited to be a snowmobile trail, yet provides an imperfect link to other suitable segments. Its location may make necessary an overall circuitous route. This is not necessarily negative. For most riders, snowmobiling is essentially a means of recreation first and transportation second. The recreational snowmobiler is often more interested in the experience of traveling than in the destination itself. Therefore, a somewhat longer route covering a more varied terrain may enhance the rider's enjoyment of the route. Use of the truck trail makes sense only as part of a connection to the existing Cheney Pond-Irishtown snowmobile trail. In order to connect the two existing trails, approximately 1½ miles of new trail would have to be constructed. Much of this 1½ miles of construction would be through relatively open hardwoods, but it is likely that some tree removal would be necessary. It is also possible that the new construction may necessarily traverse brief wet areas. There are no old roads known to form the basis for such a connection. Like several of the above segments, the truck trail lies within this aforementioned large area of potential deer yard habitat in the Vanderwhacker Brook and Boreas River drainages. Finally, because of its duty as a vehicle road and its hardened state, the Roosevelt truck trail is considered a practical alternative.

Cheney Pond-Irishtown trail

This trail is currently designated by the Department as a snowmobile trail. It runs from Hoffman Road in Minerva north to the Blue Ridge Road Most of the trail is in fair shape, excepting a wet area approximately 250 feet long just north of the tributary of Minerva Stream coming off Bailey Hill. To be made safer, the trail needs two new bridges across Minerva Stream (near Mud Pond), a bridge across the above-mentioned tributary of Minerva Stream, and a bridge at the site of the old Lester Dam.

pros -existing trail
-currently designated by the Department for snowmobile use
-no known endangered or threatened plants or animals in vicinity

cons -requires 4 new bridges, including one at Lester Dam, which may require a permit (Scenic River), if allowed at all
-not the safest route to hamlet of Minerva, necessitates 4 miles of travel along Town and County Roads
-in order to be a multi-season trail, it needs a minor re-route in one spot
-passes near an historic deer wintering yard and through several areas which the AEC GIS model identifies as potential deer yard habitat
-may require additional tree removal in some underused sections, and certainly will require much maintenance work and possibly some leveling and earth-moving

discussion -The trail is well-used at its southern end because it leads to a private inholding with three camps on it. The trail is currently being used by these owners or their guests to access their property via ATVs.

Snowmobile traffic crosses over the ice of Lester Flow just above the old Lester Dam, which blew out completely over 20 years ago. Therefore the crossing would require a bridge for reasons of safety. A new bridge at this point would be expensive and may require a permit or may not be allowed at all, because the Boreas River is designated "Scenic." However, the law is unclear regarding the northern boundary of this "Scenic"designation. The boundary may either be 100 feet downriver of Lester Dam, or it may be at the outlet of Cheney Pond (roughly 1½ miles upriver).

The re-route around the wet spot will be difficult because of the site's proximity to the Hoffman Notch Wilderness. The re-route has to go on higher ground, which would mean putting it on the Wilderness area.

The northern end of the trail lies within the aforementioned large area of potential deer yard habitat in the Boreas River drainage that stretches west to the D & H rail line. However, as the trail continues south and enters the Minerva Stream watershed, the area of potential deer yard habitat, as indicated by the GIS model, narrows and becomes centered roughly on the stream and the snowmobile trail. The relative scarcity of potential deer yard habitat in the Minerva Stream corridor suggests that wintering deer may be more impacted by an increase in snowmobile use of this portion of the trail, because there are fewer suitable yarding areas in this vicinity.

Getting from the northern terminus of the trail to Newcomb is difficult without constructing new trail connecting it either to the Roosevelt Truck Trail and/or the Railroad tracks. At first sight, it appears possible to follow the Blue Ridge Road. However, this road is narrow and twisting between the Cheney Pond trail and Tahawus Road, and therefore possibly quite dangerous to snowmobile traffic. New trail could be constructed on state land parallel to but screened from the Blue Ridge Road as far as the state boundary, but the neighboring owners may not be so willing to allow the new trail across their property.

Finally, at the Cheney Pond trail's southern end, snowmobile traffic must parallel Hoffman Road (for 2 miles) and then Longs Hill Road (another 2 miles) in order to reach the hamlet of Minerva. However, the local snowmobile club is working on obtaining permission to construct a trail across private property in order to avoid snowmobile travel along Hoffman Road Because of its current designation as a snowmobile trail, this segment is in a fair position to be part of the trail providing access to the hamlets.

Stony Pond-Irishtown trail

The trail runs from Route 28N east to Stony Pond and then heads south to the Sherman Ponds and eventually follows Falls Brook down to John Brannon Road in Minerva. For the last 3/4 of a mile, the trail crosses private property. The southern end of the trail is in good shape. Since the part around the Sherman ponds is in poor shape, snowmobilers do not use it, and instead drive across the frozen ponds. The section from 28N to Stony Pond is used year-round, but could certainly use some maintenance work if it is to be used as part of a "through" trail. This work could include installation of several broad-based dips, improving an intermittent stream crossing, and possible bridge construction near the site of an abandoned beaver dam.

pros - existing trail; requires no additional tree removal
-already designated by the Department for snowmobile use

-no known endangered or threatened plants or animals in vicinity

cons -section along the Sherman ponds will need to be re-routed
-crosses private land at its southern end
-AEC GIS model indicates the presence of potential deer yard habitat between Stony Pond and Route 28N
-some potential for conflict between lean-to visitors and passing snowmobiles

discussion -This trail is in a good position to be used in the trail facilitating access between the hamlets because of its location and current designation as a snowmobile trail. It leads fairly close to the hamlet of Minerva (in comparison to the Cheney Pond-Irishtown trail), and its northern end is accessible to several of the other alternate segments, including the Northwoods Club Road, the southern portion of the Old Military Road, the Hewitt Pond foot trail, and any new trail constructed parallel to 28N. Because of its designation as a snowmobile trail, other users already expect to encounter snowmobiles. However, the only lean-to in VMWF is located along this trail. Users of the lean-to, who employ non-motorized means to reach it, may be disturbed by increased snowmobile use a through trail may create. However, current trail register data indicate low levels of use of the lean-to (regardless of user group) during the snowmobiling season.

It is likely that snowmobilers have never used the approximately 3/4 mile-long section of trail along the west side of Big Sherman Pond and Little Sherman Pond, and instead, have always traveled across the frozen pond. Hence, the trail alongside the pond is severely overgrown. It is also located on a side-slope that occasionally exceeds 30% and may make for difficult snowmobiling. The trail will require brushing, a bridge across Falls Brook (near the outlet of the pond), and may even require leveling and earthmoving in some spots. A second option is construction of a re-route around the ponds to the west, which will provide a much more level surface. Of course, this represents brand new trail construction of more than a mile. Another option is construction of a re-route around the pond to the east. According to old maps, the trail originally followed this route and crossed via a natural causeway or perhaps corduroy between the then separate ponds. Rising water levels, probably due to increased beaver activity, were likely responsible for the later re-route. This eastern re-route would require new trail construction of approximately 0.5-0.75 miles, and would traverse an area identified as potential deer yard habitat in the AEC GIS model. If this re-route is used, staff will field verify for use of the area by wintering deer, and locate the re-route to avoid significant impacts to deer, if necessary. There is another downside to the eastern re-route; it would connect to the existing snowmobile trail as it climbs the divide between the Sherman Ponds and Stony Pond drainages. Although this section is relatively steep compared to other sections of the existing snowmobile trail, it is passable if the snow is packed through regular snowmobile traffic or by grooming equipment.

The GIS model also identifies a wetland area west of Stony Pond as potential deer yard habitat, through which the trail passes - a trail which currently sees winter use by motorized and non-motorized recreationists.

Minerva woods road (Across Private Property near the hamlet of Minerva)

This trail would lead from Route 28N in the hamlet of Minerva, just north of Minerva Lake and cross private and state land to intersect with the Stony Pond Snowmobile trail near the private inholding known as the Beaver Meadow Club.

pros -leads directly from the hamlet; eliminating any snowmobile travel along automobile roads in Minerva
-little tree removal necessary, if any
-no known endangered or threatened plants or animals in vicinity
-no known deer wintering yards in vicinity

cons -approximately 1 mile of newly designated snowmobile trail on state land
-must reach agreement(s) with adjacent private landowner(s)

discussion - This segment is proposed in conjunction with the Stony Pond snowmobile trail because it connects with it and leads much closer to the hamlet of Minerva, thereby keeping snowmobile traffic off of Longs Hill Road. At present there is an existing path, leaving from an old farm near the hamlet center, which leads up to the Beaver Meadow Club inholding along Falls Brook. This route uses at least two old woods roads as it traverses public and private land. Therefore, new trail construction would be minimal, but some may be necessary if the owners of the inholding object to the trail crossing their property. Additionally, rehabilitation work on portions of the trail would be necessary to protect the resource. Since this segment leads directly to the hamlet and follows old woods roads and existing paths, it is considered a workable alternative if an agreement is worked out with the owner(s) of the private property it crosses.

Across Private Property near the hamlet of Newcomb

This segment would continue the current route from Long Lake using the Lake Harris Campground road to a point just south of the Hudson River bridge, then heading east alongside the Hudson across lands owned by the Town of Newcomb, the Open Space Institute (OSI), Finch, Pruyn & Company, Inc., and/or possibly other private property to connect eventually with Route 28N east of the scenic overlook. The route would then follow the State Highway for approximately 1-1½ miles and head up Eaton Road and then Tahawus Road until reaching the railroad tracks. Essentially, this route connects Campsite Road with the railroad tracks. It would be preferable if the trail stayed to the north of and avoided crossing 28N, but a crossing may be necessary to avoid impacts to significant plant communities on private property north of 28N.

pros -no new trail construction on Forest Preserve
-no known endangered or threatened animals in vicinity

cons -necessitates snowmobile travel along shoulder of 28N for 1 to 1½ miles
-agreements with 3 to 5 different private property owners will be necessary
-may cost the towns of Newcomb and Minerva money for an annual lease.
-data from the New York Natural Heritage Program indicate the presence of 3 significant communities and the historic presence of two threatened plants on private land in the vicinity
-route may cross wetlands
-AEC GIS model indicates the presence of potential deer yard habitat in this area

discussion - Use of this route would facilitate using the railroad tracks heading south at least until they cross 28N near to the Roosevelt Truck Trail. Finch, Pruyn & Company, Inc. has informally indicated a willingness to consider allowing the trail to cross their property with certain conditions. They are willing to consider a route across their property that necessitates crossing property owned by the

Town of Newcomb, as well as two other private properties. A disadvantage of this segment is that it requires snowmobile travel along the shoulder of State Route 28N for approximately 1.5 miles. The shoulders are wide enough for safe travel for much of this length, but there are short distances where, due to topography, the shoulder is quite narrow. The route would be improved if the highway shoulder portion could eventually be moved onto private property.

New York Natural Heritage Program (NYNHP) data indicate the presence of three significant community types along the proposed route: northern white-cedar swamp, rich graminoid fen, and medium fen. Because of the high water table associated with the two fen communities, the proposed trail will not traverse these areas, but it may necessarily go through the northern white-cedar swamp community for less than 1/4 mile. NYNHP describes this type as having a global rank of G3G4 and a state rank of S2S3 (for explanation, see page 146). These communities will be avoided if the trail is laid out south of Route 28N. Depending on its specific location, the proposed route may impact this community, and the impacts will need to be mitigated. In order to lessen possible disturbance to vegetation, one option to investigate is to build sections of boardwalk through portions of this community type. If this trail section is used, DEC will work with NYNHP during trail layout to minimize impacts to this community.

New York Natural Heritage Program data also indicate the historic presence of two threatened plant species on private land within 1.5 miles of the proposed trail: pink wintergreen (*Pyrola asarifolia* ssp *asarifolia*) and balsam willow (*Salix pyrifolia*). Neither of the two plants have been documented on any of the properties the proposed route traverses, rather, NYNHP has documented the plants on private property nearby. Furthermore, pink wintergreen was last observed near this location in 1925. Pink wintergreen, also known as bog wintergreen and liver-leaf wintergreen, is normally found in moist, shaded woodlands and thickets, and ranges throughout Canada and the northern US. In New York, its existence has been confirmed in Warren, Essex, and Herkimer Counties within the last 20 years and is likely to exist in other Adirondack counties, as well as a few counties in the central and western portions of the State. Although the plant is listed as "threatened" (S2) in New York, it has a global rank of G5 (demonstrably secure throughout its range). Balsam willow was last observed near this location in 1927. It is listed as "threatened" in New York and has a global rank of G5. Its existence has been confirmed in Essex, Franklin, Lewis, and St. Lawrence Counties within the last 20 years and is listed as "probable" in other Adirondack counties. Its normal range also includes the Lake States, Northern New England, and Canada.

Although the plants were last documented over 74 years ago, and their exact locations are not known, it is possible that pink wintergreen or balsam willow exist on the properties. If this segment is used in the overall trail, DEC and/or NYNHP staff will seek permission from the landowners to search for the plants during the time of trail layout. In the event that either or both of the plant species are located, appropriate reports will be filed with NYNHP and the trail will be re-routed to avoid the plants, if possible.
If formally approved by Finch, Pruyn & Company, Inc., the Town of Newcomb, OSI, and the other owners of private property which the trail traverses, this is considered a good alternative.

Parallel to State Route 28N
This segment would require the construction of a new trail along 28N between Moose Pond Road and Hewitt Road or even as far as the Stony Pond trail or perhaps along other sections. (This layout could also apply to sections paralleling the Blue Ridge Road). The new trail would be, in some cases, immediately adjacent to the State Highway, but more often 50 to 500 feet off of and parallel to it.

pros -keeps snowmobiles out of the interior; thereby lessening user conflict issues associated with noise
-no known threatened or endangered plants or animals in vicinity

-makes a "true loop" out of the existing Boreas River Loop foot trail

cons -entirely new trail would have to be constructed
-trail alongside the highway does not provide the most interesting scenery to users
-possible safety concerns about Route 28N automobile bridge over the Boreas
-may require a Wild, Scenic, and Recreational River Systems Act permit, since part of the new trail would be within the ½- mile "River Area" of the Boreas River
-AEC GIS model indicates the presence of potential deer yard habitat in the area

discussion -Building parallel trail keeps snowmobiles and the noise out of some of the interior of VMWF and in the existing highway corridor, as encouraged on page 36 of the APSLMP. Of course, some sections of 28N (and other roads) are unsuited to such trail because of private property and topography. The Route 28N bridge over the Boreas River is narrow and may prove a dangerous crossing, if left as is. Signage may be a way to lessen the problem given the relatively light amount of traffic along that road. Other alternatives may be possible but costly, such as an adjoining or completely separate snowmobile bridge. Regarding the Boreas River Loop foot trail; users must now walk along the shoulder of Route 28N or double back on the trail to return to the parking area. Building this section of snowmobile trail, would make the loop safer and more enjoyable for hikers and skiers. With respect to potential deer yard habitat in this area, the snowmobile trail would be very close to the existing highway and would therefore likely have little additional impact on any deer yard habitat that may exist. Overall, the APSLMP encourages placement of new snowmobile trails within travel corridors and along edges rather than in interior portions of state land. Therefore, this segment is considered a preferential alternative.

Hewitt Pond foot trail

This trail is currently not designated for snowmobile use. It runs from the east end of Hewitt Road in a southerly direction and meets the Stony Pond snowmobile trail right near that pond's outlet.

pros -relatively little tree cutting or vegetative disturbance necessary
-use of existing foot trail during winter months is near zero; therefore little potential for user group conflict
-no known threatened or endangered plants or animals in vicinity

cons -requires 1 mile re-route at north end to avoid steep terrain and private property
-another steep section may require a shorter re-route
-not currently designated for snowmobile use
-will pass through an historic deer wintering yard
-may be opposed by adjacent private landowner

discussion - It is quite possible to re-route the trail at the north end and avoid the steep slope, by leaving Hewitt Road further west. This re-route also steers clear of private property and avoids leading snowmobiles close to and hence tempting riders on to Hewitt Pond. (Snowmobiles on Hewitt Pond would be strongly opposed by the private property owners on the north side of the pond and may even be considered trespassing). The re-route involves constructing approximately 1 mile of new trail and building at least 2 bridges. Approximately 0.2 miles of this re-route will pass through a spruce-fir wetland that has been identified as potential deer yard habitat in the AEC GIS model and that has been used by deer as a wintering yard in the past. The other re-route mentioned above would occur in the middle portion of the trail as it climbs up out of the Barnes Pond drainage. In this section, the foot trail is quite straight and in at least one spot perhaps a little too steep for sleds and small trail groomers to climb. Therefore, a re-route of perhaps 100-150' may have to be constructed.

Although the foot trail is not currently designated for snowmobile use, the trail is quite wide (especially between Hewitt Pond and the north end of Stony Pond) and surprisingly few trees over 3" in diam. would have to be removed. In addition, at least one portion of the foot trail does follow what appears to be an old woods road that may have been put in for salvage operations after the 1950 blowdown.

Another advantage of using this trail is that it provides a connection from the Stony Pond snowmobile trail to Route 28N near Aiden Lair, thereby avoiding the private property along Balfour Lake and minimizing new trail construction along Route 28N. From this point it may be possible for a snowmobile trail to follow 28N up to and connect with the Moose Pond Road. Opposition may come from the private owners on the north side of Hewitt pond and hikers or skiers about turning this foot trail into a snowmobile trail. However, the trail currently sees very little use as is evidenced by much overgrowth on the sections between Barnes Pond and Stony Pond. The number of registered users of the trail over the last four years has averaged only 25 distinct groups per year and most users hike the trail only as far as Hewitt Pond. Registered winter use is near zero. Additionally, a few minor re-routes (less than 100' in length) may be necessary in a few steep spots or stream crossings. Because of its lack of use in the winter, width, condition, and proximity to the Stony Pond snowmobile trail and Moose Pond Road, the Hewitt Pond foot trail is in a good position to become a part of the trail which would facilitate access between the hamlets.

Conclusion

Alternative A (Vanderwhacker snowmobile trail; Moose Pond Road; segment parallel to State Route 28N; [Hewitt Pond Foot Trail;] Stony Pond Snowmobile Trail; Minerva woods road) is a preferred alternative that, in general uses mostly existing trails and roads, but will require some new trail construction parallel to State Route 28N. By and large, it is considered generally equal in preference to Alternative B. This alternative recommends new trail adjacent to Route 28N and/or use of the Hewitt Pond Foot Trail, rather than the railroad tracks, due to issues of safety and snow cover. Trail parallel to 28N and the Hewitt Pond Foot Trail are preferred over the south end of the Old Military Road, because they will lead to less disturbance and require less work to prepare for snowmobile use. The Hewitt Pond Foot Trail could be omitted from this alternative in order to avoid constructing the re-routes called for. Instead, the community trail to facilitate access between the hamlets would continue south, paralleling State Route 28N from Hewitt Road to the Stony Pond snowmobile trail. This section of 28N traverses some private land in the vicinity of Balfour Lake. The parallel trail could be routed across private property, if approval from landowners were obtained. Or it may be possible to avoid private property altogether, and construct the trail across state land to the east of the lake.

Alternative A is approximately 22 miles in length, 18 miles of which are on Forest Preserve. It will require 3-5 miles of new trail construction on Forest Preserve, depending on whether the Hewitt Pond foot trail is used. Most of that new construction would be parallel to Route 28N (in keeping with the APSLMP guidelines for new trail construction).

Alternative A will require agreements with 4 to 6 private property owners.

Alternative A will require re-opening the Vanderwhacker Snowmobile Trail. Snowmobiles generally cross wetlands under frozen conditions and will be unlikely to cause further degradation to the Vanderwhacker Snowmobile Trail. Furthermore, 6 NYCRR § 196.2(a) provides that snowmobiles may be used on designated trails “when the trail traveled is completely covered by snow and ice.” Due to the increased use that would result from its designation as part of a “through” trail, it would be recommended

to lay geo-textile fabric along sections of the trail deemed sensitive and place suitable fill material above. APA wetlands permits would be required before such work may be undertaken. Bridges could also be placed, where appropriate, to protect wetlands and streambanks. In addition, the trail could be gated at the south end, as well, and designated for winter-use only.

Alternative A recommends construction of new trail parallel to Route 28N just south of the Boreas River. Since a portion of this trail construction would be within the ½-mile "River Area" of the "Scenic" Boreas River, a Wild, Scenic, and Recreational River Systems Act permit may be required prior to construction. Building parallel trail keeps snowmobiles and the noise out of some of the interior of VMWF and in the existing highway corridor, as encouraged on page 36 of the APSLMP, but trail alongside the highway does not provide the most interesting scenery to users. In addition, the Route 28N bridge over the Boreas River is narrow and may prove a dangerous crossing, if left as is. Signage may be a way to lessen the problem given the relatively light amount of traffic along that road. Other alternatives may be possible but costly, such as an adjoining or completely separate snowmobile bridge.

Alternative A recommends construction of a 1-mile re-route at the north end of the Hewitt Pond Foot Trail if this segment is used. Approximately 0.2 miles of this re-route will pass through a spruce-fir wetland, which deer have used as a wintering yard. Bridging will be used when necessary to minimize disturbance to vegetation. However, given the terrain, it will be impossible to avoid the deer wintering yard. Opposition may come from the private owners on the north side of Hewitt Pond and hikers or skiers about turning this foot trail into a snowmobile trail. However, the trail currently sees very little use as is evidenced by much overgrowth on the sections between Barnes Pond and Stony Pond. In fact, the number of registered users of the trail over the last three years has averaged only 21 distinct groups per year and most users hike the trail only as far as Hewitt Pond. Registered winter use is near zero. However, in order to limit trail building in the interior, it may be preferable to omit the Hewitt Pond foot trail segment from Alternative A. Instead, new trail parallel to Route 28N could be constructed from Moose Pond Road all the way to the Stony Pond trailhead.

The Stony Pond trail is well suited to be used in the trail facilitating access between the hamlets, but it will require an approximately one mile re-route around the Sherman Ponds. The current trail location is unsuitable for snowmobile use. Use of the Stony Pond Snowmobile Trail is preferred over the Cheney Pond trail, because it will bring traffic much closer to the Minerva hamlet center and thus will be much safer. This translates into 2 miles of travel along the shoulder of town and county roads from the Stony Pond snowmobile trailhead to the hamlet center versus 4 miles from the Cheney Pond snowmobile trailhead to the hamlet center. In addition, if an agreement is reached with the owner of the private property along the Minerva woods road, snowmobiles will reach the hamlet center directly without any travel along town or county roads.

Alternative B (private property in Newcomb; the Railroad tracks; [Moose Pond Road;] segment parallel to State Route 28N; [Hewitt Pond foot trail;] Stony Pond snowmobile trail; Minerva woods road) is also a preferred alternative. The Moose Pond Road and Hewitt Pond foot trail segments are noted in brackets because this alternative could be formed without using them. In that case, the route would go across private property in Newcomb to the railroad tracks, follow the tracks to 28N, parallel 28N for approximately 6 miles to the Stony Pond trailhead and continue to the Minerva woods road and down to the hamlet. This route may be more preferable since the Hewitt Pond foot trail segment requires several re-routes and may be opposed by the adjacent landowner.

Alternative B is approximately 21 miles in length, 12 miles of which are on Forest Preserve. It will require 3-6 miles of new trail construction on Forest Preserve, depending on whether the Hewitt Pond foot trail and the Moose Pond Road are used. Most of that new construction would be parallel to Route 28N. Alternative B will require agreements with 6 to 9 private property owners.

Alternative B is similar to Alternative A for some of its route and therefore, has similar advantages. However, on the northern end it substitutes new trail across several privately owned properties in Newcomb and the D&H railroad tracks for the Vanderwhacker Snowmobile Trail. This can be considered both an advantage and a disadvantage. Because they are privately owned and usually located close to motor vehicle roads, it may be easier to build and maintain snowmobile trails across private property. Such properties may already be somewhat developed and have existing networks of trails and logging roads. However, the property owners must first be willing to allow public snowmobile trails across their properties. And without a long-term agreement (easement), access to the entire trail can be easily shut off.

At its northern end, Alternative B may traverse a New York Natural Heritage Program (NYNHP) identified significant community type (a northern white-cedar swamp) for less than 1/4 mile. In order to lessen possible disturbance to vegetation, it may be advisable to build sections of boardwalk through portions of this community type or layout the trail to the south of Route 28N. NYNHP data also indicate the historic presence of two threatened plant species on private land within 1.5 miles of the proposed trail: pink wintergreen (*Pyrola asarifolia* ssp *asarifolia*) and balsam willow (*Salix pyrifolia*). Neither of the two plants have been documented on any of the properties the proposed route traverses, rather, NYNHP has documented the plants on private property nearby. In addition, the last time either plant was observed at these locations was over 74 years ago. In New York, pink wintergreen's existence has been confirmed at other locations in Essex, Warren, and Herkimer Counties within the last 20 years and is likely to exist in other Adirondack counties, as well as a few counties in the central and western portions of the State. Although the plant is listed as "threatened" (S2) in New York, it has a global rank of G5 (demonstrably secure throughout its range). Balsam willow is also listed as "threatened" in New York and has a global rank of G5. Its existence has been confirmed at other locations in Essex, Franklin, Lewis, and St. Lawrence Counties within the last 20 years and is listed as "probable" in other Adirondack counties. The normal range of both plants also includes the Lake States, Northern New England, and Canada.

The plants were last documented over 74 years ago, but it is possible that pink wintergreen or balsam willow exist on the properties. However, if this segment is used in the overall trail, DEC or NYNHP staff will seek permission from the landowners to search for the plants during the time of trail layout. In the event that either or both of the plant species are located, appropriate reports will be filed with NYNHP and the trail will be re-routed to avoid the plants, if possible.

Use of the railroad tracks may require the assumption of liability by the Town, County, and/or State government(s) or the local snowmobile club. Snow cover may also be an issue in riding and grooming the tracks. Perhaps six to twelve more inches of snow will be needed to cover the rails and it is theorized that the openness of the railroad tracks coupled with the conductivity of the rails and ties would cause early snowmelt. These two possibilities contribute to an overall shorter season of use. Furthermore, the tracks have many safety issues associated with them. Signage along the railroad tracks will be very important in warning users of approaching bridges, narrow spots, and other potential hazards, but may not solve all the safety problems. In the event the rails are removed from the D&H corridor, this alternative would be improved.

Alternative C (Vanderwhacker trail; Moose Pond Road; Railroad tracks; Northwoods Club Road; Stony Pond snowmobile trail; Minerva woods road) is also a preferred alternative that, in general uses mostly existing trails and roads and, by and large is considered generally equal in preference to Alternative D. Its overall length is approximately 25 miles, 18 of which are on Forest Preserve. It requires new trail construction of only 2 miles on Forest Preserve - in the vicinity of Northwoods Club Road. This mileage is through relatively open hardwoods and would require little cutting of large trees (dbh > 8"). Of that distance, 0.2 miles would necessarily be in the Special Management Area known as "Boreas Hardwoods" (see page 65). In order to minimize vegetation disturbance in Boreas Hardwoods, the trail would be placed on the periphery of the area, and the Department would take every reasonable effort to avoid removing trees larger than 8" dbh. Some may ask why this 2-mile segment of new construction would be necessary. Why can't Northwoods Club Road simply be used from the railroad tracks all the way to Route 28N, especially given its designation by the town as a town road open to snowmobiles? In short, the potential for accidents with motor vehicles is too high. The road is plowed and regularly used by motor vehicles. Sight distances are short as the road twists and climbs out of the Boreas River valley. In several places, the land next to the road drops away quickly to the ravine below. In addition to the safety concerns, if the Lot 118 woods road is used and new trail constructed from that point, the resultant route will lead directly to the Stony Pond trailhead on 28N

Use of the Stony Pond Snowmobile Trail will bring traffic much closer to the Minerva hamlet center than the Cheney Pond Snowmobile Trail will and thus will be much safer. This translates into 2 miles of travel along the shoulder of town and county roads from the Stony Pond snowmobile trailhead to the hamlet center versus 4 miles from the Cheney Pond snowmobile trailhead to the hamlet center. In addition, if an agreement is reached with the owner of the private property along the Minerva woods road, snowmobiles will reach the hamlet center directly without any travel along town or county roads.

Additionally, the overall route requires designating approximately 2 miles of existing old woods roads, 1 mile of existing motor vehicle roads, and 5 miles of railroad track as snowmobile trail. The route covers a mix of public land, private land, and public rights-of-way and will require agreements with 2 to 4 private landowners in order to facilitate access between the hamlets. The overall route takes advantage of the existing Stony Pond Snowmobile Trail, but would require re-opening the Vanderwhacker Snowmobile Trail. Snowmobiles generally cross wetlands under frozen conditions and will be unlikely to cause further degradation to the Vanderwhacker Snowmobile Trail. Furthermore, 6 NYCRR Part 196.2(a) provides that snowmobiles may be used on designated trails "when the trail traveled is completely covered by snow and ice." Due to the increased use that is likely to result along this route, it would be recommended to lay geo-textile fabric along sections of the trail deemed sensitive and place suitable fill material above. APA wetlands permits would be required before such work may be undertaken. Bridges could also be placed, where appropriate, to protect wetlands and streambanks. In addition, the trail could be gated at the south end, as well, and designated for winter-use only.

Use of the D& H railroad tracks adjacent to the Boreas River may require APA permits before designation. However, at least one other UMP has designated a snowmobile trail through a Scenic River Corridor in another area of the Park and has not required an APA permit; namely the Remsen - Lake Placid Travel Corridor UMP and the Moose River in Herkimer County. Use of the tracks may also require the assumption of liability by the Town, County, and/or State government(s) or the local snowmobile club. Snow cover may also be an issue in riding and grooming the tracks. Perhaps six to twelve more inches of snow will be needed to cover the rails and it is theorized that the openness of the railroad tracks coupled with the conductivity of the rails and ties would cause early snowmelt. These two possibilities contribute to an overall shorter season of use. Furthermore, the tracks have many safety

issues associated with them. Signage along the railroad tracks will be very important in warning users of approaching bridges, narrow spots, and other potential hazards, but may not solve all the safety problems. In the event that the rails are removed from the D&H corridor, this alternative would be greatly improved. Alternative C, through its use of the railroad corridor, avoids the new trail construction parallel to 28N, but does necessitate construction of 2 miles of new trail to connect 28N and the Lot 118 woods road. In comparison, Alternative A requires 3-5 miles of new trail construction, and Alternative B requires 3-6 miles of new trail construction on Forest Preserve lands.

There are no known threatened or endangered plants and animals along Alternative C.

Alternative D - (private property in Newcomb; the Railroad tracks; Northwoods Club Road to 28N via state land; Stony Pond snowmobile trail; Minerva woods road)
Alternative D is similar to Alternative C for some of its route and therefore, has similar advantages. However, on the northern end it requires that several privately owned properties be crossed to reach the railroad tracks. This can be considered both an advantage and a disadvantage. Because they are privately owned and usually located close to motor vehicle roads, it may be easier to build and maintain snowmobile trails across private property. Such properties may already be somewhat developed and have existing networks of trails and logging roads. However, the property owners must first be willing to allow public snowmobile trails across their properties. And without a long-term agreement (easement), access to the entire trail can be easily shut off. Over its entire length, Alternative D will require agreements with 5 to 7 private property owners, depending on the trail's final location.

Like the other alternatives that use this private property, Alternative D may traverse a significant community type (a northern white-cedar swamp) for less than 1/4 mile. NYNHP data also indicate the historic presence of two threatened plant species on private land near the proposed trail location. The plants were last documented over 74 years ago, but is possible they exist on the properties. If this segment is used in the overall trail, DEC and/or NYNHP staff will seek permission from the landowners to search for the plants during the time of trail layout. In the event that either or both of the plant species are located, appropriate reports will be filed with NYNHP and the trail will be re-routed to avoid the plants, if possible.

Alternative D is approximately 25 miles in length, only 8 miles of which are on Forest Preserve, thereby lowering the potential for user group conflict. Of those 8 miles, 5 miles are on the existing Stony Pond Snowmobile Trail, 1 mile is on the Northwoods Club Road and intersecting Lot 118 woods road, and 2 miles represent new construction to connect the woods road with the Stony Pond Snowmobile Trail. 0.2 miles of this new 2 mile trail would necessarily be in the Special Management Area known as "Boreas Hardwoods" (see page 65). In order to minimize vegetation disturbance in "Boreas Hardwoods", the trail would be placed on the periphery of the area, and the Department will take every reasonable effort to avoid removing trees above 8" dbh. As discussed earlier, using the Northwoods Club Road all the way to Route 28 in lieu of new trail construction in this area would be unsafe.

Alternative D uses the D&H Railroad tracks. The "scenic" designation of the Boreas River alongside the tracks between Moose Pond Road and Northwoods Club Road may require that an APA or DEC permit be acquired before this segment of the tracks may be designated as a snowmobile trail. However, in at least one other place in the Adirondack Park, an approved UMP permits snowmobile use of a railroad in a "scenic" river corridor. The Remsen - Lake Placid Travel Corridor UMP permits snowmobile use in the section of the corridor that crosses the designated "scenic" Moose River in Herkimer County. In this case, an APA permit was not required. Use of the tracks may also require the assumption of liability by the Town, County, and/or State government(s) or the local snowmobile club. Snow cover may also be an

issue in riding and grooming the tracks. Perhaps six to twelve more inches of snow will be needed to cover the rails and it is further believed that the openness of the railroad tracks coupled with the conductivity of the rails and ties would cause early snowmelt. These two possibilities contribute to an overall shorter season of use. Furthermore, the tracks have many safety issues associated with them. Signage along the railroad tracks will be very important in warning users of approaching bridges, narrow spots, and other potential hazards, but may not solve all the safety problems. In the event that the rails are removed from the D&H corridor, this alternative would be greatly improved. Alternative D, through its use of the railroad corridor, avoids the new trail construction parallel to 28N, but does necessitate construction of 2 miles of new trail to connect 28N and the Lot 118 woods road. In comparison, Alternative A requires 3-5 miles of new trail construction, and Alternative B requires 3-6 miles of new trail construction on Forest Preserve lands.

A clear drawback of this route is that it requires travel along the shoulder of Route 28N in Newcomb for 1 to 1½ miles. If the State is able to purchase easements or otherwise secure permanent rights-of-way across private lands, thereby reducing trail mileage alongside the state highway, this alternative would be greatly improved. Its ranking of preference is similar to Alternative C.

Alternative E -(Vanderwhacker snowmobile trail; Moose Pond Road; the Railroad tracks; segment parallel to State Route 28N; Roosevelt Truck Trail; Cheney Pond snowmobile trail) is also acceptable, but not preferred because of the many problems associated with the use of the Cheney Pond Snowmobile Trail segment.

Alternative E is approximately 30 miles long, 20 miles of which are on Forest Preserve. It will require just 1.5 miles of new trail construction on Forest Preserve. It will also require 2 agreements with private property owners.

The Cheney Pond Snowmobile Trail currently crosses the Boreas River at Lester Flow, via the ice; there is no bridge. With the establishment of a trail which would facilitate access between the hamlets, use of the "through" trail will likely increase. In the interest of safety, it would be necessary to build a bridge across the river at this point. However, since the Boreas is a designated "Scenic River", construction of a completely new snowmobile bridge may not be allowable. Furthermore, the section of the Cheney Pond Snowmobile Trail between Lester Flow and Mud Pond would require much maintenance work and several new bridges across smaller streams to be able to handle that increased use. In order to create a trail that is enjoyable to ride (and hence actually used by snowmobilers), the trail may also require leveling work along this section.

The Cheney Pond Snowmobile Trail has another safety problem; it does not bring users close enough to the Minerva hamlet center. From the southern end of the trail, snowmobilers must travel 4 miles along Town and County Roads to reach Minerva. In contrast, the Stony Pond Snowmobile Trail brings users within just 2 road miles of, or directly to the hamlet of Minerva if the so-called "Minerva woods road" is used.

Finally, getting from the northern terminus of the Cheney Pond Snowmobile Trail to Newcomb is impossible without constructing 1.5 miles of new trail connecting it to the Roosevelt Truck Trail. Much of the 1.5-mile construction would be through relatively open hardwoods, but it is likely that at least some tree removal would be necessary. It is also possible that the new construction may necessarily traverse brief wet areas. There are no old roads known to form the basis for such a connection. At first glance, it appears possible to follow the Blue Ridge Road, instead of building the 1.5 mile connection. However,

this road is narrow and twisting between the Cheney Pond trail and Tahawus Road, and therefore possibly quite dangerous for snowmobile traffic. It would be possible to build new trail parallel to but screened from the Blue Ridge Road, at least as far as the state land boundary to the west. The private land beyond there is owned by Finch, Pruyn & Company and the Tahawus Club and it may be difficult to convince them to allow the public trail across their property. However, the trail would have to cross private land at the state boundary because of topography. For the above reasons, Alternative E is considered a practical option only if the four preceding options become impractical.

Alternative F (private property in Newcomb; the Railroad tracks; segment parallel to State Route 28N; Roosevelt Truck Trail; Cheney Pond-Irishtown snowmobile trail) is approximately 25 miles long, 11 miles of which are on Forest Preserve. It will require just 1.5 miles of new trail construction on Forest Preserve. It will also require 4 to 5 agreements with different private property owners.

Alternative F is quite similar to Alternative E in its drawbacks. However, through use of the private property in Newcomb segment, it makes necessary even more travel along major roads. Therefore it is acceptable, but even less preferable than Alternative E.

Alternative G (north end of Old Military Road; south end of Old Military Road; Stony Pond snowmobile trail; Minerva woods road) is considered a poor choice, because it substitutes an old road that hasn't seen use for as long as 100 years over much more recently used trails.

Alternative H (Vanderwhacker trail; Moose Pond Road; west of Railroad tracks; Northwoods Club Road; Stony Pond snowmobile trail; Minerva woods road) is also considered impractical because it uses the "west of Railroad tracks" segment, which requires at least 4 miles of completely new interior trail where no old roads or trails are known to exist that accomplish the purpose. The APSLMP discourages the Department from developing such a trail.

Alternative I (No Action) would result in the least disturbance to plant and animal habitats and is also the best way to protect the "wild forest experience" of other users of the Wild Forest. However, it obviously fails to provide a safe connecting snowmobile trail between the two hamlets. Due to topography and ownership patterns, the only connecting trail possible if the No-Action Alternative is pursued is a terribly unsafe one that stays within the Route 28N right-of-way.

However, it is important to remember that recreation trails of any type will result in some disturbance to habitats. The Department is charged with protecting the resource while providing appropriate recreational opportunities for the people of the State of New York. In providing recreational opportunities, some degree of resource degradation is unavoidable. Moreover, the APSLMP recognizes snowmobiling as an appropriate use in Wild Forest areas subject to certain guidelines, and dictates that snowmobile trails within the Preserve will be of "essentially the same character as a foot trail." Furthermore, the Department recognizes the assertion by local communities that development of snowmobile trail networks has the potential to increase economic benefits for communities in New York State. (One need look only as far as Old Forge and Tug Hill).

Many of the deleterious effects of snowmobile trails can be mitigated through proper design and layout and by observing best management practices during construction. For instance, in the ranking of the alternatives above, preference has been given to those which avoid rare and endangered plant and animal species and their habitats; avoid deer wintering yards; avoid steep slopes and areas with poor drainage; avoid long distances through wetlands; minimize vegetative disturbance, tree cutting and new trail construction; and minimize user group conflicts, but at the same time provide a safe and useable trail for

facilitating access between the hamlets. For some alternatives, these goals were not entirely achievable. In those cases, measures have been suggested which should provide sufficient mitigation.

It should also be noted that snowmobiling provides persons with disabilities with a means of accessing State lands during periods of snowcover. Thus, VMWF provides the Department with an opportunity to provide for such access.

For these reasons, Alternative I is not considered a preferred alternative.

Preferred Alternatives

In addition to the analysis summarized above, Department staff worked with staff from SUNY ESF's Adirondack Ecological Center to develop a friction model using GIS data and software to perform a least cost path analysis. In this analysis, certain features of the area were assigned different values corresponding to an estimated relative "cost" of designating a snowmobile trail across, through, or along them. In this analysis, the term "cost" does not represent a monetary value, but rather a relative value associated with the preferability of traversing or avoiding a certain feature. Estimates for these cost values were derived using the APSLMP's Wild Forest Guidelines for Management and Use, as well as other factors described in more detail earlier in this appendix. For instance, existing snowmobile trails were assigned the lowest cost, because they were already designated for snowmobile use. Unplowed motor vehicle roads (such as the Moose Pond Road and the Roosevelt truck trail) and the D&H rail line were assigned the next lowest cost, for obvious reasons. Existing non-motorized trails or old woods roads were assigned a slightly higher cost, because they already existed, but also had negatives associated with opening them to snowmobile use. Buffered areas along highways were given a slightly higher cost, because no trail existed there yet but the areas were established travel corridors. Areas without trails were assigned a higher cost, because of the negative impacts associated with new trail construction. Similarly, uplands were assigned a low cost whereas waterbodies and wetlands were assigned a relatively high cost. Several other features were also factored into the model, including slope, the Boreas River, the Hudson River, significant natural communities, potential deer yard habitat, and the Boreas Hardwoods special management area. Using the assigned values and respective data layers, the least cost path was then calculated - or in other words, a route showing the shortest path with the lowest cumulative cost was rendered.

The first test of the model produced a least cost path that corresponded very closely to the route described by Alternative C. Later iterations, following slight adjustments in the relative values of several features produced similar results. Of course, the friction model was not the last word in laying out the route, but rather provided a further tool to the Department in its overall analysis of the options.

Of the alternatives, the first four are considered viable, but there is no perfect alternative, as each has its drawbacks. Furthermore, the four preferred alternatives are just combinations of Alternative A and Alternative D; there are two viable ways to get from Newcomb to Moose Pond Road and two viable ways to get from Minerva to Moose Pond Road. The selection of Alternatives A or B, which both utilize the new "trail parallel to 28N" to connect Minerva and the Moose Pond Road, will necessitate the construction of at least 3 and as much as 6 miles of new trail. Alternatives C and D, which both utilize the railroad tracks to connect Minerva and Moose Pond Road, will require roughly 2 miles of new trail construction, a portion of which will necessarily pass through the Boreas Hardwoods Special Management Area. However, the use of the railroad corridor with the rails in place may present safety hazards as mentioned earlier. If the rails were removed, Alternatives C & D would be greatly improved

and would be more preferable than A or B, because use of the corridor would have the least environmental impact and the potential safety issues would be largely overcome.

The railroad corridor was appropriated by the federal government during WWII to construct a railroad to transport titanium from the Tahawus mine for use in the war effort. Since then, the corridor has been leased by the government to the operator of the mine. Since the recent OSI purchase of the former National Lead property at Tahawus, it appears that OSI may now hold that lease and that National Lead and/or Essex County IDA own the actual rails. **Therefore, it is proposed that if the rails are removed and relevant permissions for corridor use obtained, Alternatives C & D be considered the preferred alternatives**[1] for facilitating snowmobile access between Newcomb and Minerva. Plywood or other suitable materials would be used on railroad bridges to improve snow retention and safety. Where necessary, railings would also be added to railroad bridges and signage would be used to alert snowmobilers to potential trail hazards.

Since Alternative D requires agreements with several private property owners in order to reach the railroad tracks, initial construction will focus on the section between the Stony Pond trailhead and the Northwoods Club Road crossing of the Boreas River. If the segment across private property in Newcomb is still not operational following the completion of the previously mentioned section of trail, Alternative C will be implemented (including grooming) as an interim means of facilitating access between the hamlets of Newcomb and Minerva until such time as Alternative D can be fully implemented. With respect to grooming and snowmobile trail classification, the VMWF UMP may be revisited, once the Draft Comprehensive Snowmobile Trail Plan for the Adirondack Park/DEIS[2] has been finalized.

It may be possible and preferable to use both Alternative C and D to facilitate long-term snowmobile access between Minerva and Newcomb. The Railroad tracks could function as the "corridor" (as defined by NYS OPRHP), well-groomed route, allowing for easier and faster travel and handling most of the snowmobile traffic between the towns. And the Vanderwhacker snowmobile trail could remain open and function as a Class II-b trail, or a slower, scenic, backcountry route. It could be groomed by a snowmobile with a "drag" or simply left ungroomed.

The two routes offer different types of snowmobiling experience. Many snowmobilers have expressed an interest in keeping trails like the Vanderwhacker trail open to snowmobiles, because they offer a scenic, slow-going, almost remote experience, versus the flatter, faster, manicured route of the railroad track. Reopening of the Vanderwhacker trail as a secondary snowmobile route has other benefits, as well. Snowmobiling provides persons with disabilities with a means of accessing State lands during periods of snowcover. Also, snowmobile traffic will provide a "groomed" surface for nordic skiers and snowshoers to enjoy, yet interrupt these users less frequently than a primary designation would. Such "groomed" nordic ski trails are hard to come by in the Forest Preserve. Furthermore, if this trail is not kept open as a snowmobile trail, it is quite likely that other users will travel along it infrequently and it will again become

[1]This represents a slight change from the May 2004 VMWF Draft UMP for Public Review, which proposed Alternatives A & B as the preferred routes. New information regarding ownership of the corridor and possible removal of the rails, as discussed above, has prompted this change.

[2]The Department of Environmental Conservation and the NYS Office of Parks, Recreation and Historic Preservation are currently engaged in a planning process focused on the future of snowmobiling in the Adirondack Park. A Draft Comprehensive Snowmobile Plan/DEIS has been circulated for public review. When a Final Plan/FEIS is adopted, the VMWF UMP will be revisited and amended, if appropriate.

overgrown, eventually disappearing. If the trail is re-opened, the Department will develop a work plan, aimed to improve and protect the trail against the possible negative effects to wetlands caused by the reopening of the trail to snowmobiles. The Department will begin the work pending receipt of the necessary wetlands permits.

Initial implementation of the preferred alternative will focus on improvements to the trail along the Lot 118 woods road and construction of the 2-mile trail between the woods road and Route 28N. Additionally, the Department will develop a work plan in consultation with the APA to determine the most appropriate location for a re-route in the vicinity of the Sherman Ponds. These trail segments and others required by Alternative D will be laid out in the field so as to avoid significant impacts to deer wintering yards.

If overall trail grades can be kept under 10% as recommended by the International Mountain Biking Association, the new and relocated trail required in Alternative D will be designed and constructed for all-terrain bicycle use, as well. Even if the railroad ties and rails are removed, bicycle use of the corridor could still be problematic in that the railroad corridor is currently surfaced with rather rough gravel that could impede bicycle use.

If it becomes evident that Alternatives C & D cannot be achieved due to problems discussed above, Alternatives A & B will be considered the preferred alternatives. Alternative A will be implemented and grooming will be permitted on the trail segments on the Forest Preserve as an interim means of facilitating access between the hamlets of Newcomb and Minerva until such time as Alternative B can be fully implemented.

Neither Alternative A nor B will include designation of the Hewitt Pond foot trail segment for snowmobile use, since use of this segment will require construction of several re-routes. The Alternatives will instead include new trail construction parallel to Route 28N between Hewitt Road and the Stony Pond trailhead. The Department will work with the local snowmobile clubs to acquire easements along Route 28N such that travel along the shoulder of Route 28N is minimized. If easements on private lands between Hewitt Road and the Stony Pond trailhead cannot be acquired, the trail will be constructed on Forest Preserve lands immediately east of the private lands.

Additionally, the Department will develop a work plan in consultation with the APA to determine the most appropriate location for a re-route in the vicinity of the Sherman Ponds. When these trail segments and others required by Alternative B are laid out, significant impacts to deer wintering yards will be avoided.

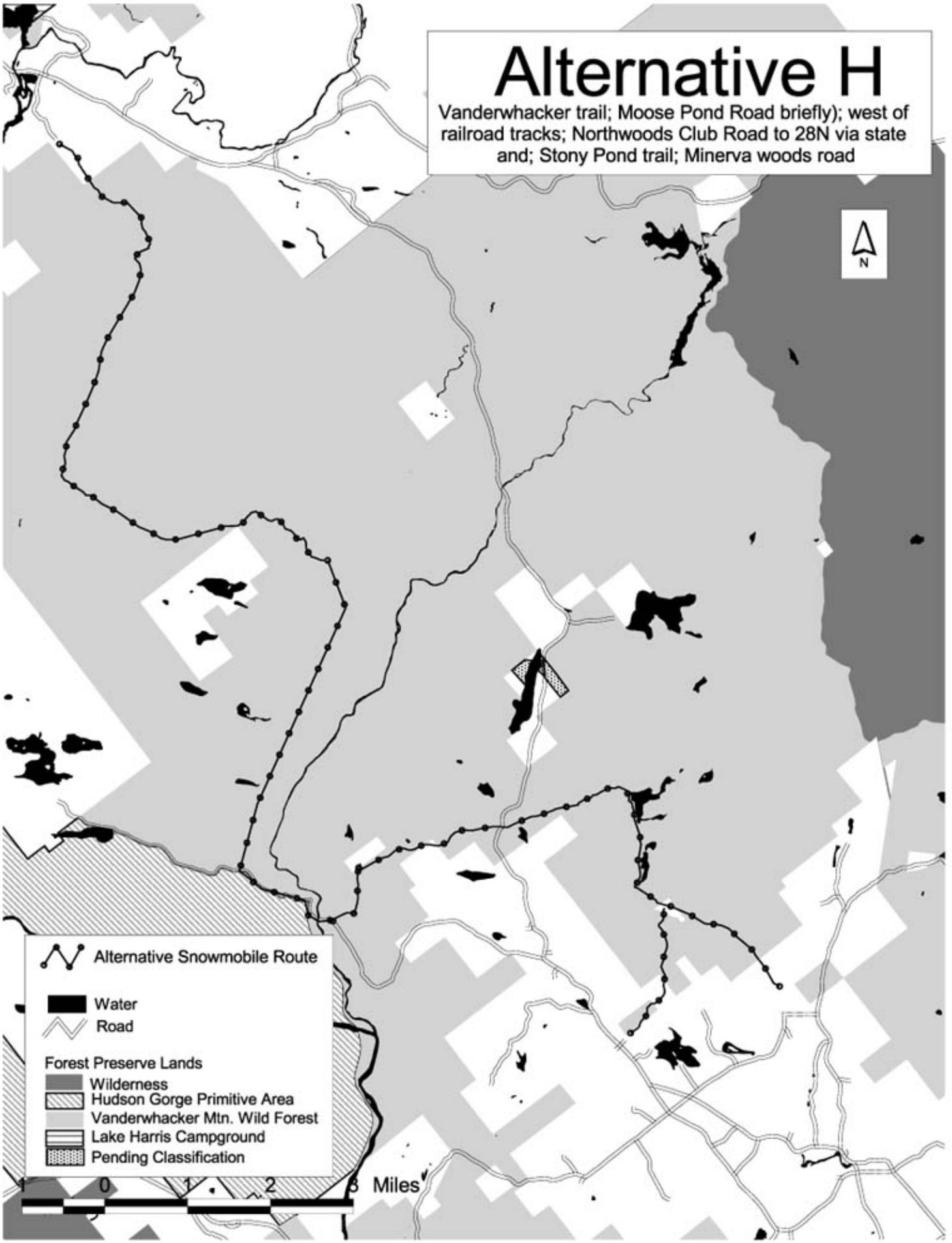
Public Use

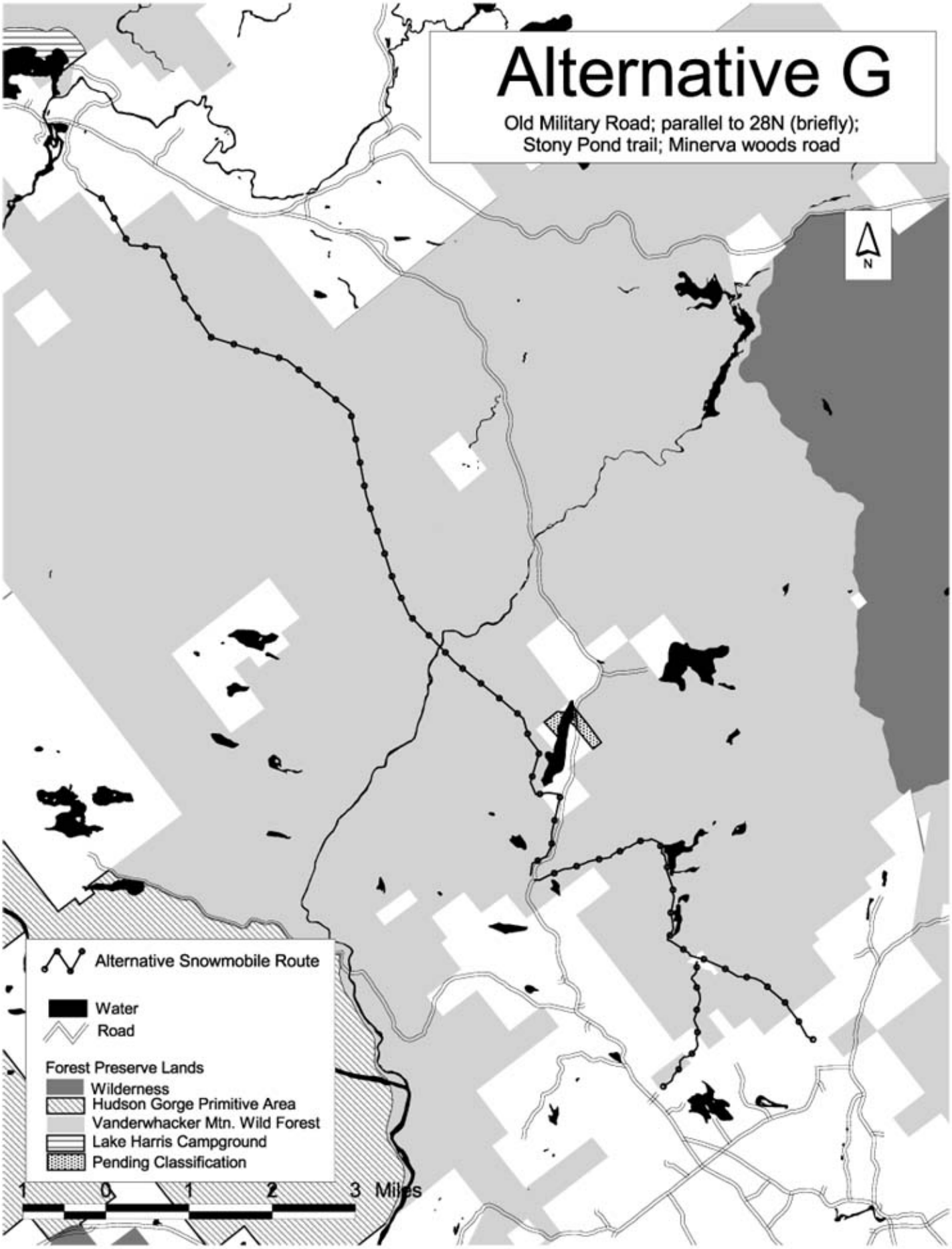
Hard data is unavailable, but current snowmobile use of the existing snowmobile trails in VMWF is believed to be low. This is perhaps due in part to the disjointed system of trails in VMWF and the unit's isolation from other trail systems. Trail register data, lean-to journals, and staff observation suggest that the Stony Pond trail is more heavily-used than the Cheney Pond snowmobile trail, but even the former does not see large numbers of users. In years of deep snowcover, high snowbanks may preclude access to the Stony Pond trail from the 28N side, leaving the trail accessible only from the Longs Hill Road end. It is not uncommon to see much more use on the Longs Hill Road end than on the 28N trailhead, during winters of less snowcover, as well. This suggests that most riders are local, since the parking area at the south end is quite small in comparison.

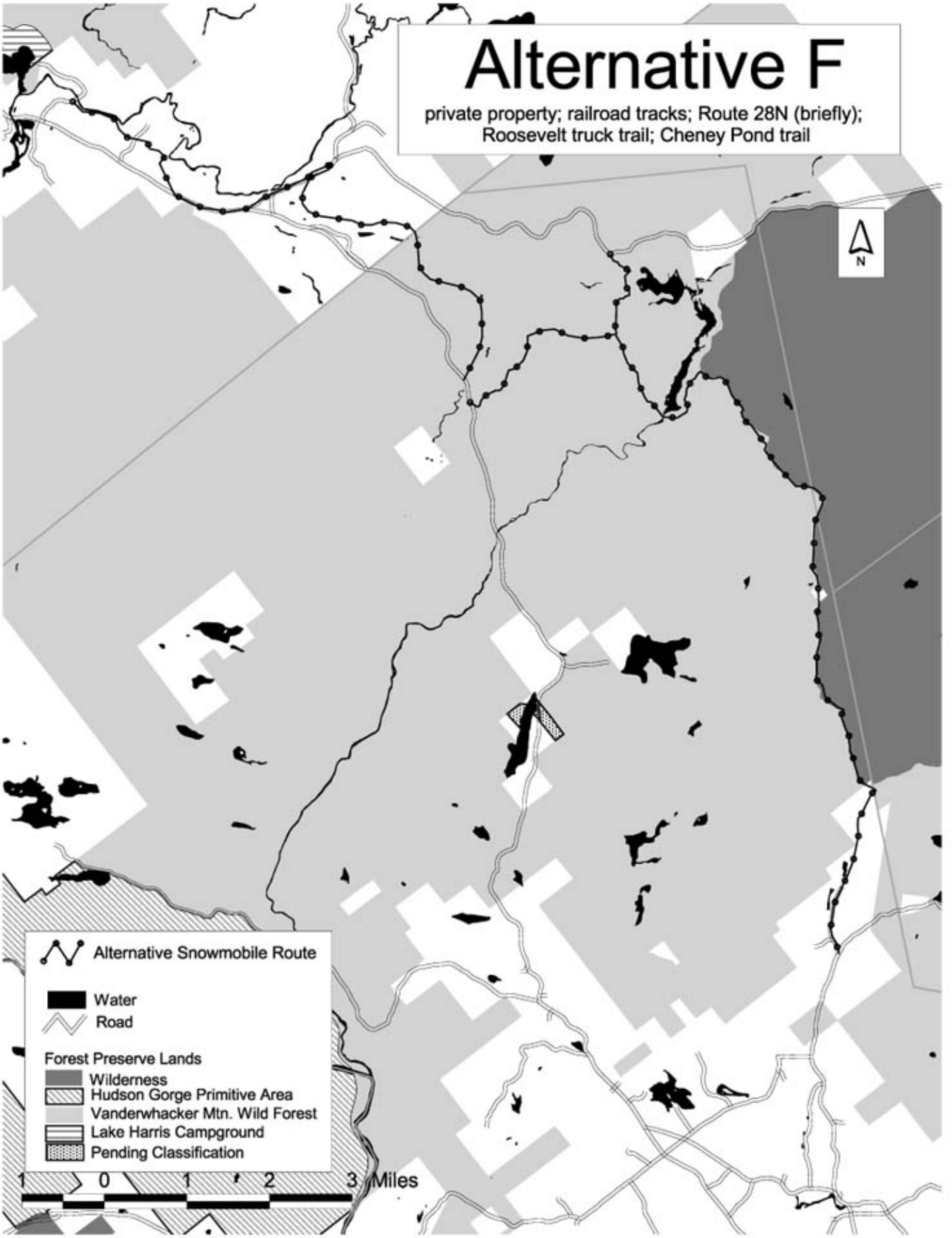
By facilitating access between the hamlets, use of the existing trails that become a part of that trail facilitating access between the hamlets will no doubt increase. However, it is difficult to predict how

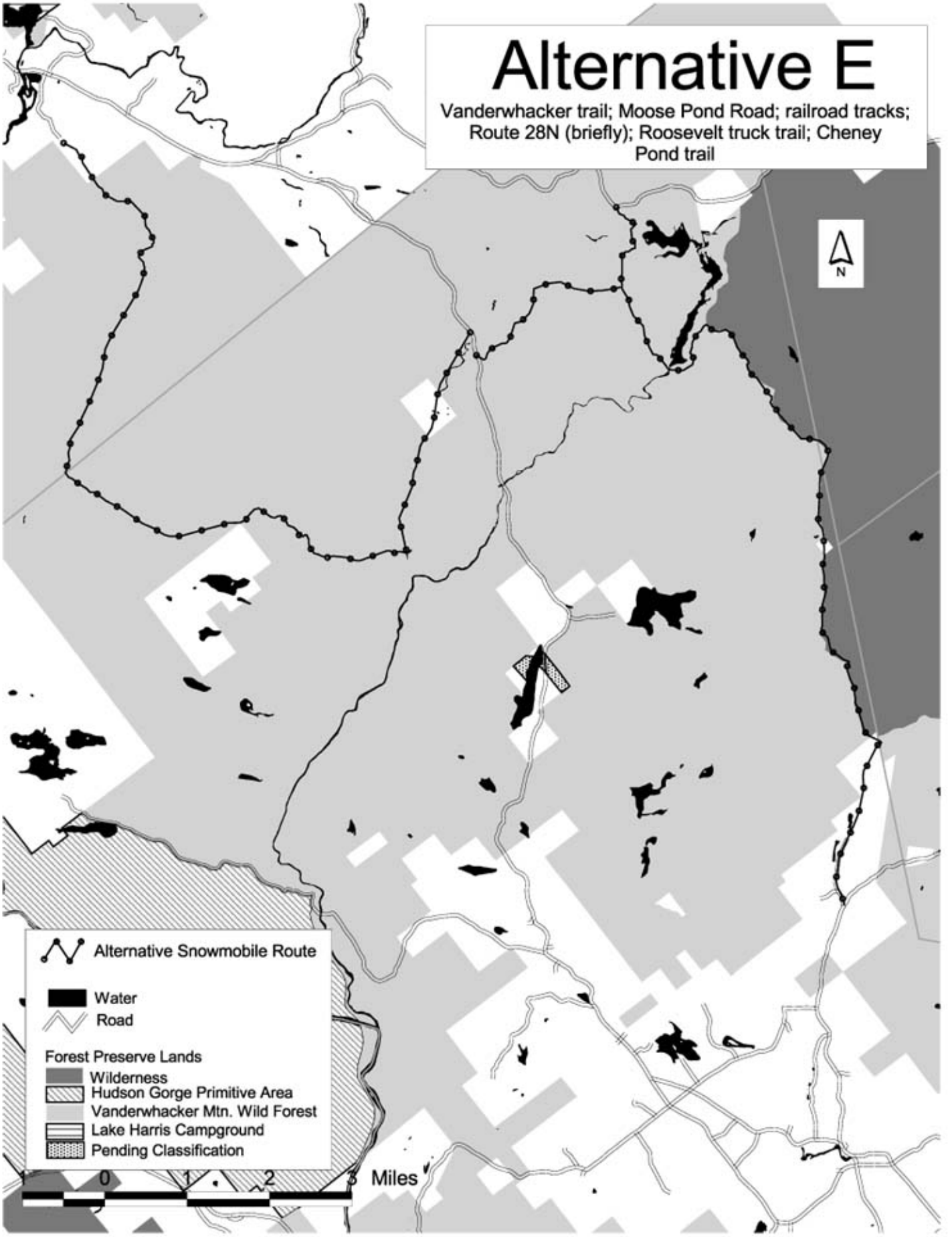
large the increase will be. Use of the trail facilitating access between the hamlets by local riders wishing to make longer trips, will certainly increase, but the Towns are also interested in increasing tourism by attracting downstate and out-of-state snowmobilers as well as snowmobile touring enthusiasts from other parts of the Park. DEC is committed to developing and implementing a system to improve tracking of existing and future use of this trail. This trail facilitating access between the hamlets will be a part of a larger system of snowmobile trails connecting trails in northern Warren County with northern Hamilton County, and ultimately with the rest of the Park. This will certainly lead to increased snowmobile use in the area, but it will not be the only route connecting Warren, Essex, and Hamilton Counties. Existing and potential routes in southwestern Warren County, eastern Essex County, and elsewhere will provide similar long-distance connections. Any increase in use of VMWF snowmobile trails will be limited by a number of factors, including the number of hotel rooms, restaurants, attractions, and other services (including gas) available in the area. The increase will likely be slow, since these factors do not currently exist in great numbers in the area.

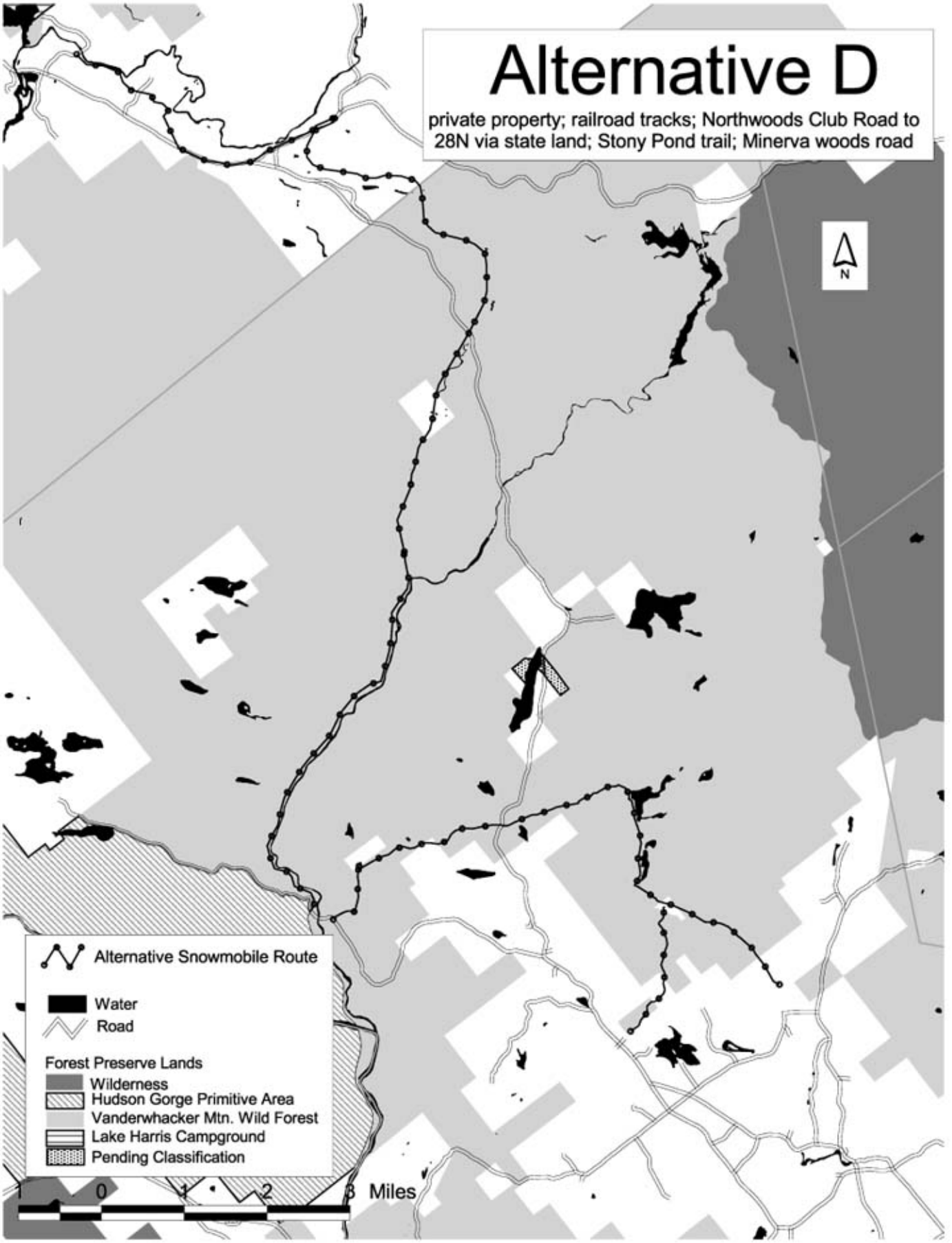
Monitoring will be important to ensure that environmental degradation as a result of over use of the trail is minimized. If degradation occurs, the Department will take appropriate actions to mitigate the degradation, including increased maintenance activities, temporary trail closures, education, and other management actions. The Department will work with local snowmobile clubs to monitor use and possible overuse of the trail and to coordinate maintenance activities through the use of Adopt-a-Natural-Resource Stewardship Agreements, when possible.

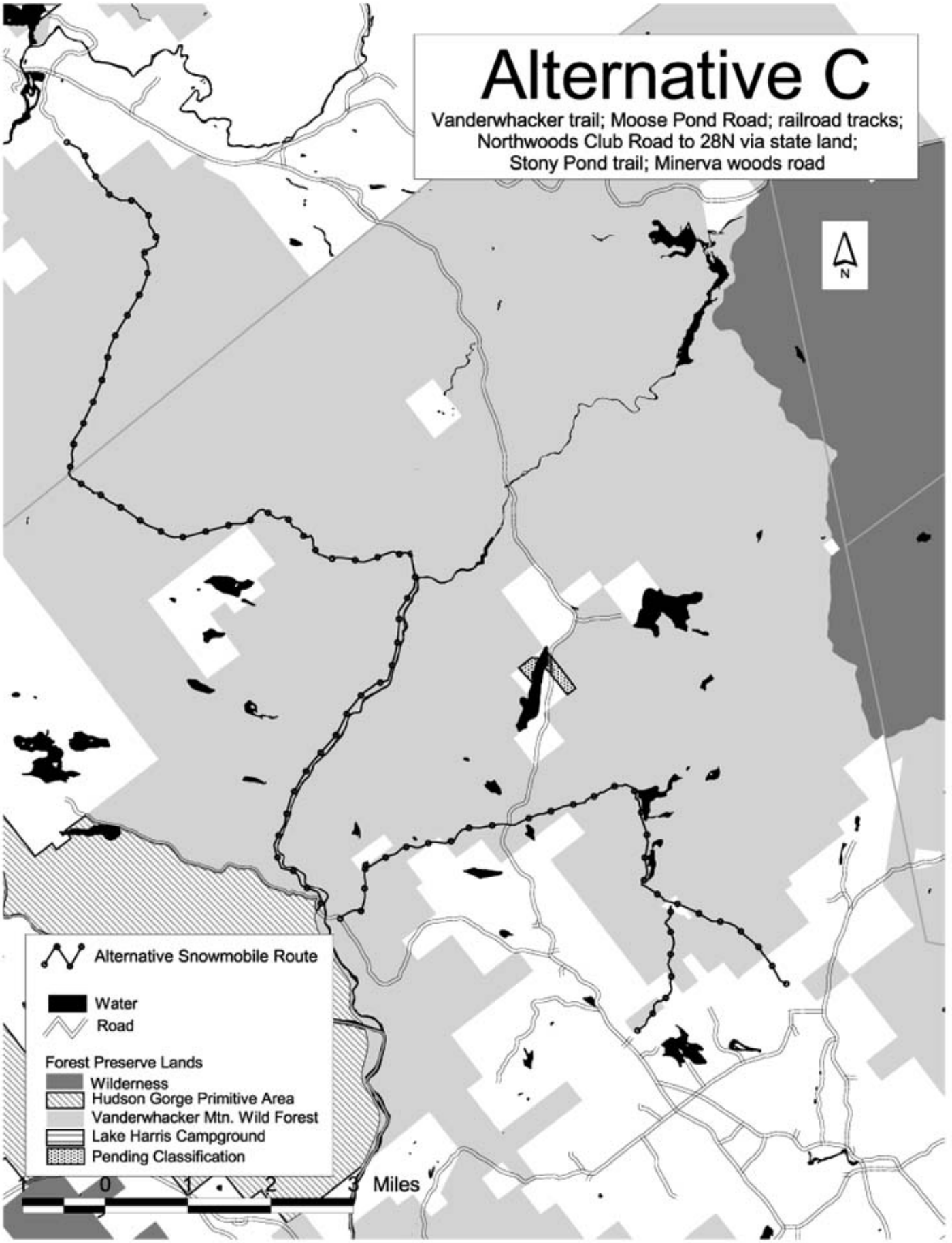

Alternative H
Vanderwhacker trail; Moose Pond Road briefly); west of railroad tracks; Northwoods Club Road to 28N via state and; Stony Pond trail; Minerva woods road
N
Alternative Snowmobile Route
Water
Road
Forest Preserve Lands
Wilderness
Hudson Gorge Primitive Area
Vanderwhacker Mtn. Wild Forest
Lake Harris Campground
Pending Classification
1 0 1 2 3 Miles

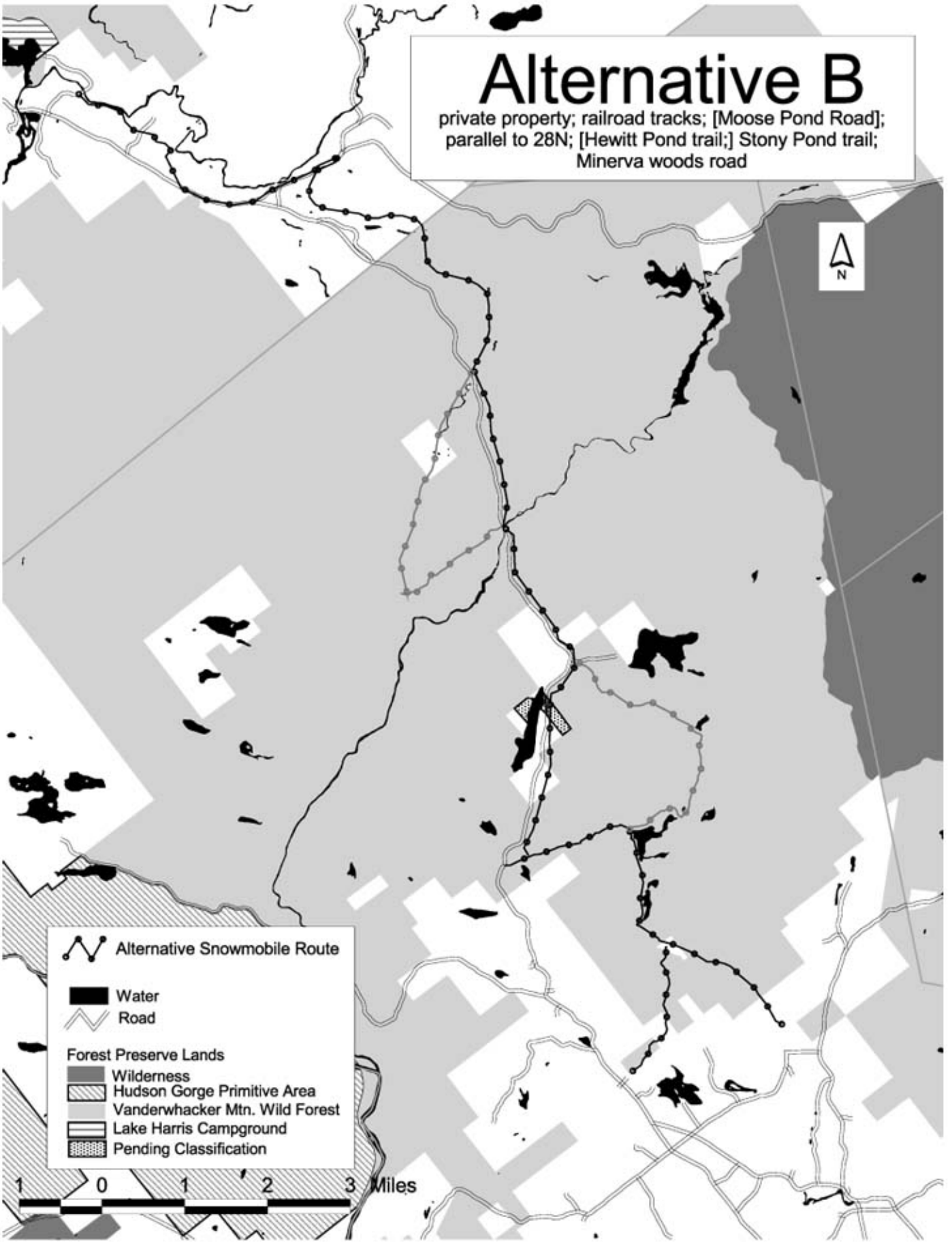

Alternative G
Old Military Road; parallel to 28N (briefly);
Stony Pond trail; Minerva woods road
N
Alternative Snowmobile Route
Water
Road
Forest Preserve Lands
Wilderness
Hudson Gorge Primitive Area
Vanderwhacker Mtn. Wild Forest
Lake Harris Campground
Pending Classification
1 0 1 2 3 Miles

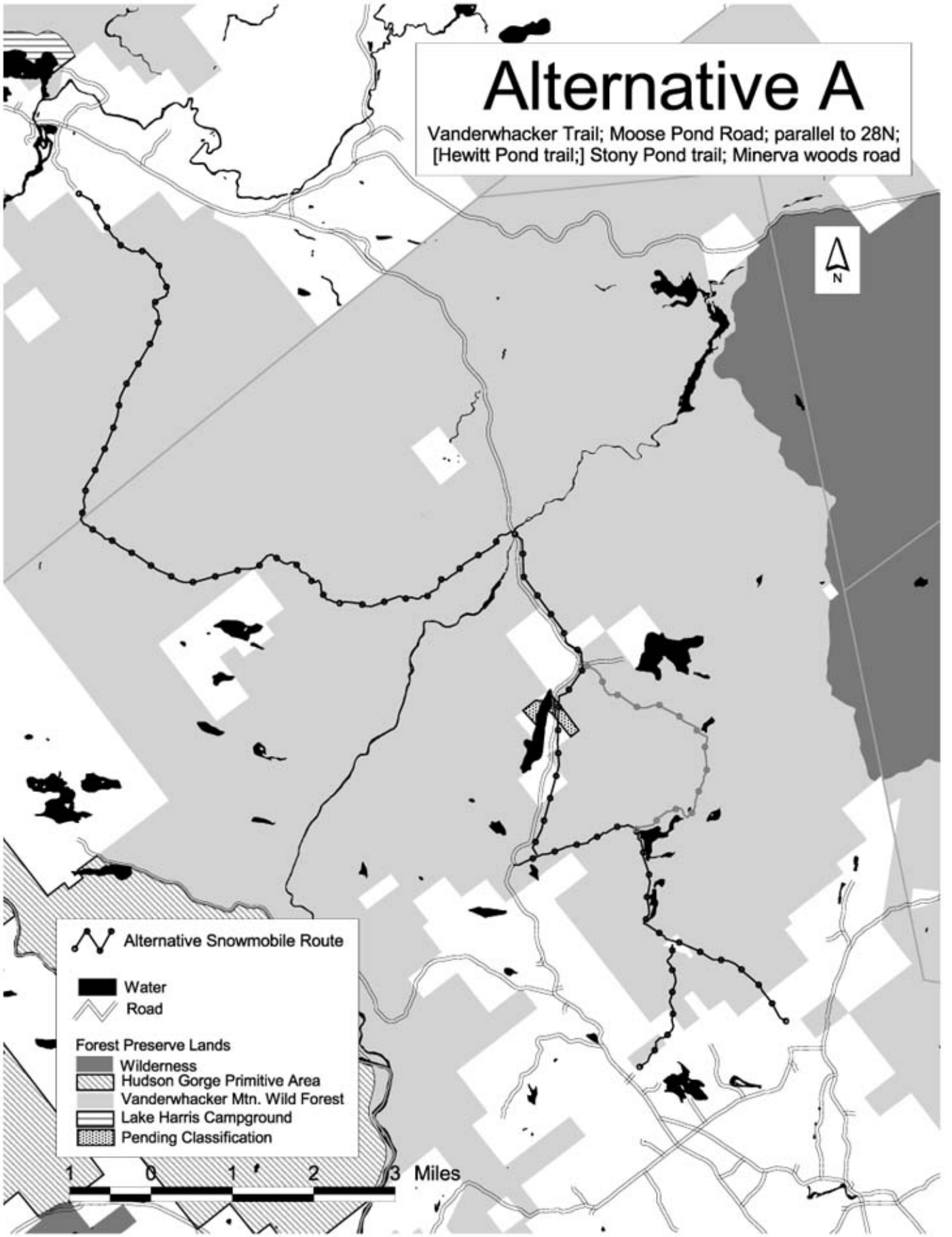

Alternative F
private property; railroad tracks; Route 28N (briefly);
Roosevelt truck trail; Cheney Pond trail
N
Alternative Snowmobile Route
Water
Road
Forest Preserve Lands
Wilderness
Hudson Gorge Primitive Area
Vanderwhacker Mtn. Wild Forest
Lake Harris Campground
Pending Classification
1 0 1 2 3 Miles

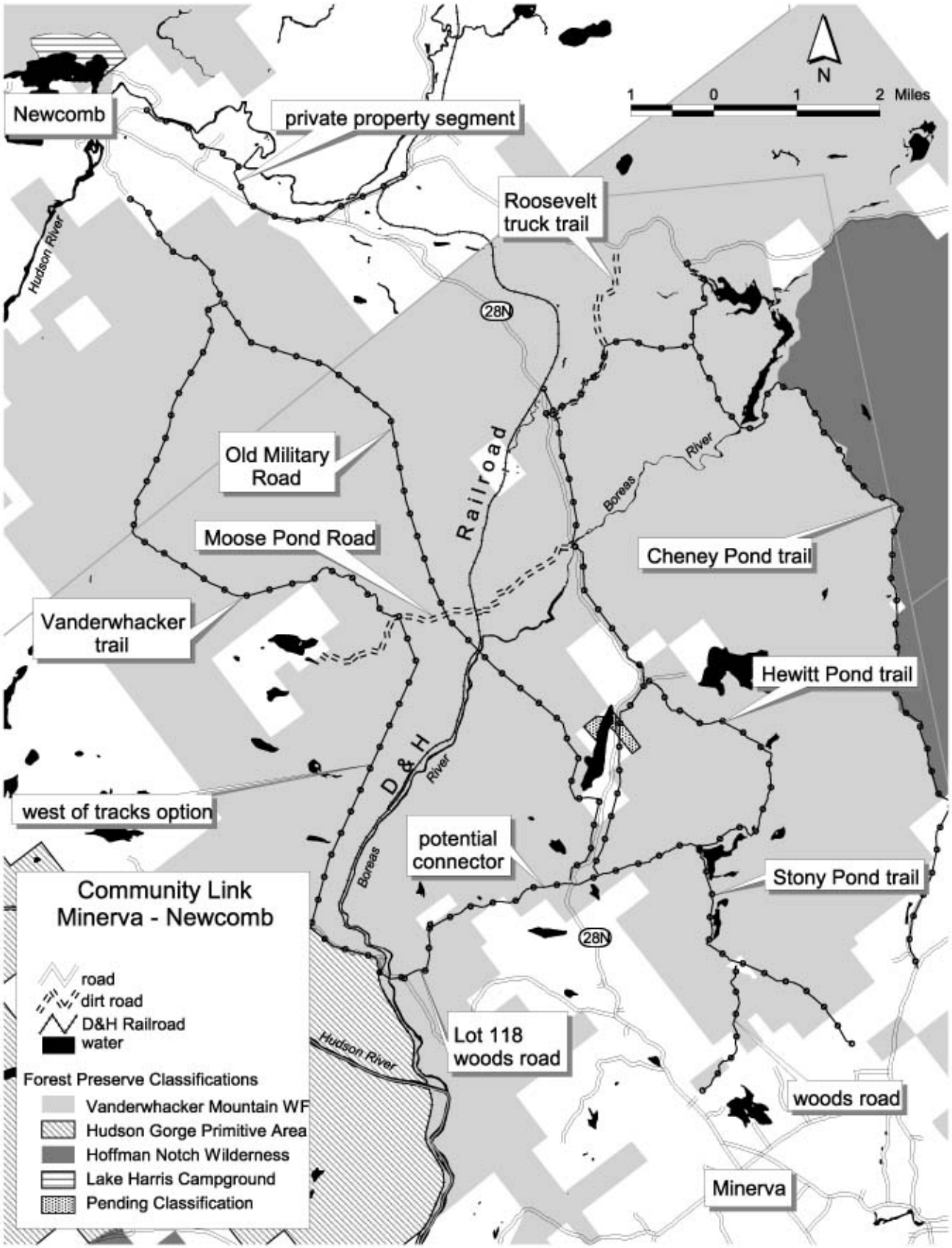

Alternative E
Vanderwhacker trail; Moose Pond Road; railroad tracks; Route 28N (briefly); Roosevelt truck trail; Cheney Pond trail
N
Alternative Snowmobile Route
Water
Road
Forest Preserve Lands
Wilderness
Hudson Gorge Primitive Area
Vanderwhacker Mtn. Wild Forest
Lake Harris Campground
Pending Classification
1 0 1 2 3 Miles


Alternative D
private property; railroad tracks; Northwoods Club Road to 28N via state land; Stony Pond trail; Minerva woods road
N
Alternative Snowmobile Route
Water
Road
Forest Preserve Lands
Wilderness
Hudson Gorge Primitive Area
Vanderwhacker Mtn. Wild Forest
Lake Harris Campground
Pending Classification
0
1
2
3 Miles


Alternative C
Vanderwhacker trail; Moose Pond Road; railroad tracks;
Northwoods Club Road to 28N via state land;
Stony Pond trail; Minerva woods road
N
Alternative Snowmobile Route
Water
Road
Forest Preserve Lands
Wilderness
Hudson Gorge Primitive Area
Vanderwhacker Mtn. Wild Forest
Lake Harris Campground
Pending Classification
0
1
2
3
Miles


Alternative B
private property; railroad tracks; [Moose Pond Road]; parallel to 28N; [Hewitt Pond trail;] Stony Pond trail; Minerva woods road
N
Alternative Snowmobile Route
Water
Road
Forest Preserve Lands
Wilderness
Hudson Gorge Primitive Area
Vanderwhacker Mtn. Wild Forest
Lake Harris Campground
Pending Classification
1 0 1 2 3 Miles


Alternative A
Vanderwhacker Trail; Moose Pond Road; parallel to 28N;
[Hewitt Pond trail;] Stony Pond trail; Minerva woods road
N
Alternative Snowmobile Route
Water
Road
Forest Preserve Lands
Wilderness
Hudson Gorge Primitive Area
Vanderwhacker Mtn. Wild Forest
Lake Harris Campground
Pending Classification
1 0 1 2 3 Miles


N
1 0 1 2 Miles
Newcomb
private property segment
Roosevelt truck trail
Hudson River
28N
Old Military Road
Railroad
Boreas River
Moose Pond Road
Cheney Pond trail
Vanderwhacker trail
Hewitt Pond trail
D&H River
west of tracks option
potential connector
Stony Pond trail
Boreas
28N
Lot 118 woods road
Hudson River
woods road
Minerva
Community Link
Minerva - Newcomb
road
dirt road
D&H Railroad
water
Forest Preserve Classifications
Vanderwhacker Mountain WF
Hudson Gorge Primitive Area
Hoffman Notch Wilderness
Lake Harris Campground
Pending Classification

Pottersville - Schroon Lake: Alternatives Discussion

Existing Conditions and Assumptions

The Schroon Lake snowmobile trail network is located mainly on the west side of the lake and is currently isolated from other nearby snowmobile trail networks. The North Warren snowmobile trail system comes closest to the Schroon Lake network, but terminates near Pottersville. There is an opportunity to create a linkage between the two networks across state and private land. Furthermore, the Town of Schroon is working on a comprehensive plan to identify trails in the area that may be used by the bicycling public. The approved Unit Management Plan for the nearby Scaroon Manor Campground Intensive Use Area includes a network of foot trails that will also be available to bicyclists. Therefore, efforts should be made to make any connecting snowmobile trail through the nearby VMWF parcels available to hikers and bicyclists, if at all possible.

Due to impassable topography and lakefront residential area, the two VMWF parcels on the Warren County - Essex County line between State Route 9 and the Adirondack Northway and adjacent private land provide the only possible off-road connection between the Pottersville and Schroon Lake trail systems. This snowmobile/bicycle trail will also necessarily cross the Scaroon Manor Campground and is addressed in that unit's approved UMP.

Because of the ownership patterns in this area, it will be necessary for the new trail to cross private land. The Department will not place snowmobile trails on private land without the owner's permission. Where an owner of private property does agree to allow a snowmobile trail on their property, the Department should secure a permanent snowmobile trail easement which binds the owner's successors in title.

Siting Alternatives (see map on pg 210)

The north end of the trail will exit Scaroon Manor at its main gate, cross Route 9, and continue in a southerly direction, utilizing the existing utility right-of-way for approximately 200 feet. Grading will be required to cut the trail into the existing side slope. A culvert will be necessary to cross the road ditch on the west side of Route 9 at road grade.

At this point, the trail will have reached the northern VMWF parcel, from which there exist two options to get to the southern VMWF parcel which will be described below as Alternatives A and B.

Alternative A

This alternative follows an existing road westward over state and private land until it reaches an existing snowmobile trail located entirely on private land. This snowmobile trail heads generally southwest until it reaches the Northway near to where it crosses Acker Brook. At this point the existing trail peters out. Pending approval from the landowner(s), new trail could be constructed on private property heading southwest to meet the abandoned portion of Old Schroon Road on the southern VMWF parcel. The local snowmobile clubs and/or Towns will work to obtain permission from private landowners to extend the snowmobile trail south from Old Schroon Road to existing snowmobile trails in the vicinity of Stone Bridge Road. It is unlikely that the trail (once it leaves state land) can be located directly adjacent to Old Schroon Road, given the number of year-round residences located along that road. Instead, from the southern VMWF parcel the trail could head west along the state land boundary for approximately 600 ft and then head south, paralleling the Northway, pending landowner approval. Or the trail could head east along the state land boundary for roughly the same distance and then head south over private property, pending landowner approval.

Alternative B[1]
This alternative begins across Route 9 from the main gate of Scaroon Manor and heads south for approximately 0.75 miles to an old dump site. There are two options to reach this site, which should be pursued in this order. These are to:

1. follow an existing dirt road over state land, or
2. continue along the utility right-of-way, directly adjacent to Route 9.

The first option is best because it uses a hardened, existing dirt road that is currently in a condition to be useable by year-round users with minimal added work. This old road, likely built in connection with the operation of the former Scaroon Manor, is not currently open to motorized vehicles. Environmental impacts associated with trail construction will be minimal since the old road is in fairly good shape.

The second option is considered unsatisfactory for two main reasons: safety and enjoyment. Because it parallels Route 9, a major state highway through the area, such a trail will be neither safe nor enjoyable for most hikers, bicyclists, snowmobilers, and other users. The utility right-of-way is adjacent to and unscreened from Route 9. Therefore, northbound snowmobile headlights could prove confusing and potentially dangerous to southbound car traffic. Also, families staying at the Scaroon Manor Campground will not be interested in a short dayhike that includes 1½ miles along a State Highway. However, this option will likely have the least detrimental environmental impact.

From the old Scaroon Manor dump site, the remnant of an older road heads south and west and crosses Acker Brook a little downstream from a beaver dam. Once across the brook, the road continues south and east and shortly reaches another old, but smaller, dump site. At this site, a third old road, known locally as the old Canada road, continues to the southwest and soon enters private property. It will be necessary to obtain landowner permission to use the private land section of old Canada road. After approximately 800 ft., the old road re-enters state land and continues south west, passing through the notch east of Sugarloaf Hill before leaving state land again. The condition of this length of the old Canada road is fairly good and it is clearly being used by at least some small number of people - most likely by hunters and hikers. Again, once through the notch, the trail enters private land. If permission from the landowner(s) is obtained, the snowmobile trail will continue south and hook into the existing local snowmobile trail network on private lands south of the intersection of Old Schroon Rd and Route 9.

Preferred Alternative
Alternative B is the preferred route because it uses existing old roads and trails on a combination of public and private land and will require the least amount of new trail construction. In fact, the trail largely exists, but would need to be improved in a few places, through the installation of erosion-control devices (e.g., water bars, broad-based dips, etc.) and at least one bridge - an approximately 20-25 foot span across Acker Brook.

[1]This Alternative has changed somewhat since the issuance of the Draft UMP for Public Review and as a result is now much improved over the Alternative B described in that draft. Following closer inspection of fading boundary lines in the area - lines that should be repainted before they are lost - it has been determined that a portion of this alternative that was thought to be located on private lands is actually located on state-owned lands. Furthermore, the addition of a nearby, forgotten, old road (known as the old Canada road) in the area has greatly improved this Alternative.

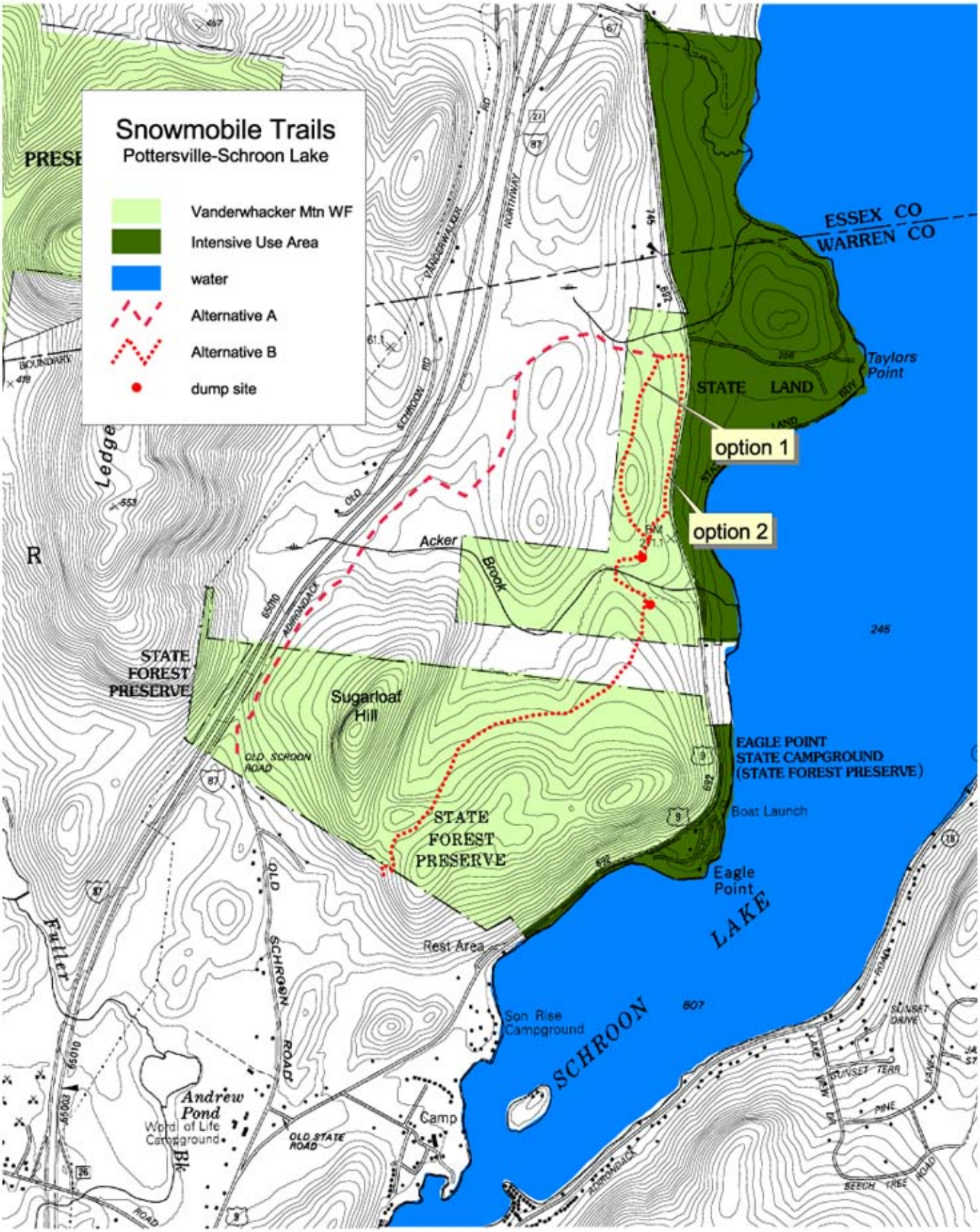
This alternative traverses at least two private ownerships along the way and it will be necessary to obtain approval from these owners. The trail will not be developed without landowner approval. Additionally, permission should also be sought for use in the non-winter months by hikers and cyclists (ATB'ers). Thus the trail could also provide additional recreation opportunities for guests of the nearby Scaroon Manor Campground. Therefore, the Department will pursue Alternative B. If private landowner permission cannot be obtained for this alternative, the Department will pursue Alternative A.

Public Use

It is extremely difficult to predict potential use associated with the establishment of this community connector between Pottersville and Schroon Lake. The hamlet of Schroon Lake is currently isolated from nearby snowmobile trails in northern Warren County, however it is possible that some snowmobilers may currently ride the frozen lake in order to make that connection now. Establishment of a trail will connect the hamlet to trails and communities to the south, but there is currently no connection to the north. Certainly use of the community connection by local riders wishing to connect to the neighboring systems will occur. And use by long-distance riders will also occur, but probably not much more than already occurs on the north Warren system, since the hamlet of Schroon Lake will be the northern terminus of this connection.

Furthermore, very little of the approximately 8-mile distance between the two hamlets will be on VMWF. In fact, the preferred route (Alternative B) will result in roughly 1½ miles of trail across VMWF lands, and almost all of this distance is via old roads. Alternative A will result in less travel across VMWF lands... approximately one half-mile.

Monitoring will be important to ensure that environmental degradation is minimized. The Department will develop LAC indicators and standards for extent of soil erosion on trails. If degradation occurs, the Department will take appropriate actions to mitigate the degradation, including increased maintenance activities, temporary trail closures, education, and other management actions. The Department will work with local snowmobile clubs to monitor use and possible overuse of the trail and to coordinate maintenance activities through the use of Adopt-a-Natural-Resource Stewardship Agreements, when possible.


Snowmobile Trails
Pottersville-Schroon Lake
Vanderwhacker Mtn WF
Intensive Use Area
water
Alternative A
Alternative B
dump site
option 1
option 2
ESSEX CO
WARREN CO
STATE LAND
Taylors Point
Acker Brook
STATE FOREST PRESERVE
Sugarloaf Hill
OLD SCHROON ROAD
EAGLE POINT STATE CAMPGROUND (STATE FOREST PRESERVE)
Boat Launch
Eagle Point
LAKE
SCHROON
Rest Area
Son Rise Campground
Andrew Pond
Word of Life Campground
Camp
OLD STATE ROAD
SCHROON ROAD
ADIRONDACK
NORTHWAY
VANDERWALKER RD
SCHROON RD
Fuller Bk
SUNSET DRIVE
SUNSET TERR
PINE
BEECH TREE ROAD
0.25 0 0.25 0.5 0.75 1 Miles
contour interval = 20 ft.

Discussion of "No Material Increase"

The APSLMP requires that there be no "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". Further, the APSLMP states that "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 a basis of such new snowmobile trail construction, except in rare circumstances requiring the cutting of new trails;" and that "wherever feasible such replacement mileage should be located in the general area as where mileage is lost due to wilderness, primitive or canoe classification."

Prior to the adoption of the APSLMP, there were approximately 33 miles of snowmobile trails across lands that were to become Vanderwhacker Mountain Wild Forest and roughly 17 miles of snowmobile trails across lands that were to become Hoffman Notch Wilderness - for a total of roughly 50 miles of snowmobile trails in the general area. With the adoption of the APSLMP in 1972, all trail mileage within the Hoffman Notch Wilderness was closed to snowmobiles. (See table below).

Implementation of this UMP could result in approximately 35.5 miles of designated snowmobile trails across Forest Preserve lands of the Vanderwhacker Mountain Wild Forest, including:

- Alternative D of the trail facilitating access between Minerva and Newcomb results in the construction and/or designation of roughly 4 miles of new snowmobile trails (reflected in table below). Or if the railroad tracks are not removed and Alternative B is implemented, the UMP would result in approximately 38.5 miles of snowmobile trails in VMWF - following the designation and/or construction of roughly 7 miles of new trail (including as much as 6 miles parallel to Route 28N and 1 mile on the so-called Minerva woods road).
- Depending on which alternative of the trail facilitating access between Pottersville and Schroon Lake is feasible, at most 1.5 miles of new snowmobile trail will result.
- Construction of a snowmobile trail on the north side of Harris Lake to avoid the unsafe crossing of Harris Lake will result in approximately 1.25 miles of new snowmobile trail.

Snowmobile Trail	Pre-'72 mileage	Post-UMP mileage	Town(s)
Stony Pond trail	4.6	4.6	Minerva
Cheney Pond - Irishtown trail	9.5	9.5	Minerva
Linsey Marsh trail	2.0	0	Minerva
Packbasket trail	1.5	0	Newcomb
Hudson River trail	0.5	0	Newcomb
Vanderwhacker trail	8.0	8.0	Minerva, Newcomb
Moose Pond Road	3.6	3.6	Minerva
Charley Hollow Rd trail	0.85	0.85	Schroon
Thilo Road trail (NW branch)	0.35	0.35	Schroon
Thilo Road trail (main branch)	0.75	0.75	Schroon
Bullet Pond trail	0.2	0	Schroon
Horseshoe Pond bypass trail	0.2	0.2	Schroon
Horseshoe Pond Road	0.9	0.9	Schroon
trails within the Hoffman Notch Wilderness[1]	17.5	--	Schroon, North Hudson
new trail from 28N to Lot 118[2]	--	2.0	Minerva
Lot 118 woods road trail[2]	--	1.0	Minerva
Minerva woods road trail[2]	--	1.0	Minerva
Scaroon Manor area trail[2]	--	1.5	Chestertown
Harris Lake trail[2]	--	1.25	Newcomb
Totals	50.45	35.5	

[1] closed following adoption of the APSLMP

[2] new trail proposed in this UMP

Moxham Mountain foot trail (Town of Minerva)
A common public request for VMWF has been for additional destination-type foot trails, less than 5 miles long. The Moxham range has often been cited for the location of such a trail, because it offers sensational views of the landscape to the southwest. In particular, the course of the Hudson River can be traced as it exits the gorge and winds its way past North River, North Creek, and Riparius.

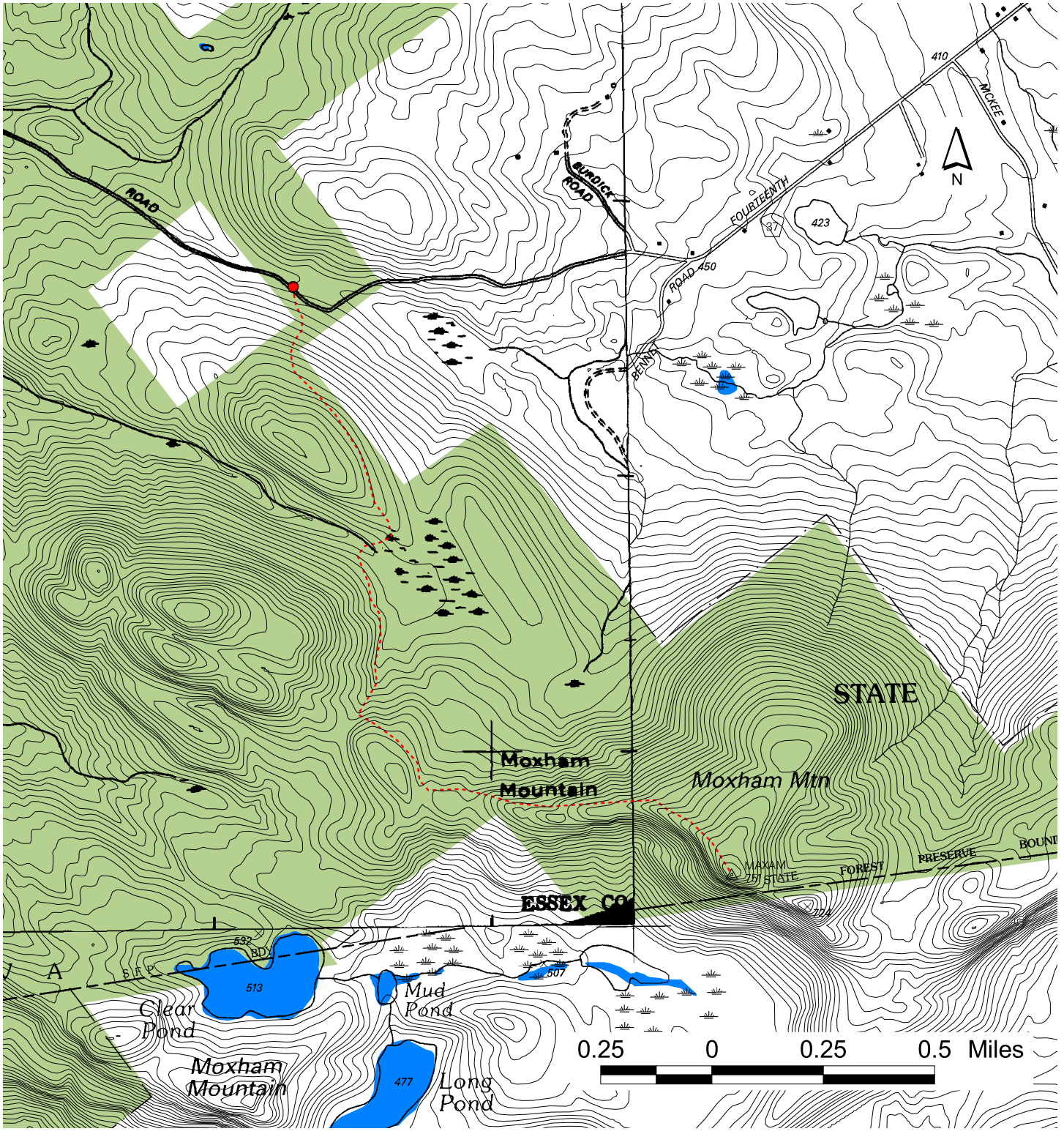
The highest peak of the Moxham Range is the most suitable for a foot trail, for several reasons. The only public access to the range is from Fourteenth Road in the Town of Minerva, from a point north and somewhat west of the fourth peak, also known as Signal Mountain. In other words, Signal Mountain is the closest publicly accessible peak, so the shortest trail to the range would be via that peak. Also, not all the peaks are entirely state-owned. Signal Mountain and Moxham Point are the exceptions. Much of the open areas of the other peaks are either partially or entirely privately-owned. Hence, a trail along them would be more apt to tempt users onto private property. Also, due to the steep southwest slope of the peak and perhaps removal of vegetation by surveyors of years gone by, the summit of Signal Mountain has low and spotty vegetation and, consequently offers the most panoramic views from the range.

Areas that may warrant concern during construction of the proposed trail include the beaver pond and the ridge line. The trail will stay on high ground as it passes the pond. Many trees around the perimeter of the pond have been removed by beaver, thus the user will enjoy nice views of the waterbody, while traversing well above it. The trail will cross the outlet of said beaver pond approximately 150'-300' below the current dam. At this location, the approach is dry and the stream is narrow and has ample stepping stones to eliminate any need for a bridge.

Along the ridge line are areas of thin soil and exposed rock. The trail will weave in and out of the tree cover, treating the user to periodic picturesque views, while sparing the few areas of thin soil cover from excessive trampling. Signs at the trailhead will direct users to avoid treading on fragile surfaces. Although the potential exists for soil loss, serious problems can be avoided through proper trail layout. When in the open, the trail will traverse exposed rock. In areas of thin soil cover, the trail will duck back in amongst the trees.

Danger also exists of damage to the vegetation of the ridgeline due to escaped fires. Southwest aspect and thin soils can lead to dry conditions along the ridge and heightened fire danger. Signs at the trailhead will alert users that camp fires are prohibited on or near the ridgeline. The local Forest Ranger will post additional signs along the upper end of the trail to remind users. This prohibition will be enforced via 6 NYCRR §190.8(p) rather than through promulgation of new regulations. 6 NYCRR §190.8(p) provides that “No person shall fail to comply with the instructions contained on a sign of the Department of Environmental Conservation.”

Additionally, an associated parking lot will be constructed as addressed in section IV. Also, the Department will seek to reach an agreement with a private landowner so that a sign may be placed on the northeast corner of 28N and Fourteenth Road, directing the public to the trailhead.


ROAD
BURDICK ROAD
FOURTEENTH
ROAD 450
PENNY
410
423
N
Moxham Mountain
Moxham Mtn
STATE
FOREST
PRESERVE
ESSEX CO
532
BDY
513
507
Clear Pond
Mud Pond
Moxham Mountain
477
Long Pond
0.25 0 0.25 0.5 Miles

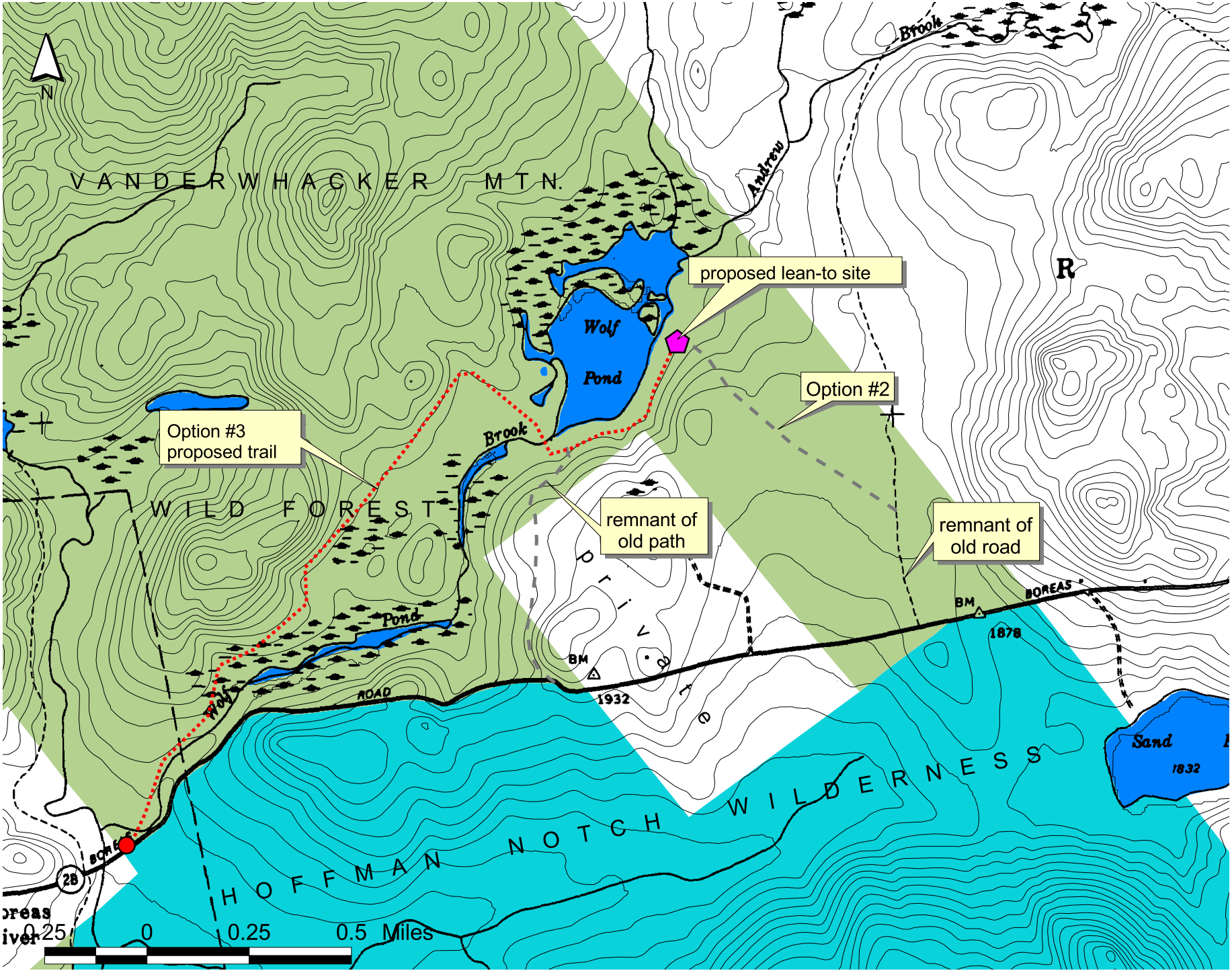
Wolf Pond foot trail (Town of North Hudson)

Wolf Pond is a very scenic body of water just north of the Blue Ridge Road, from whose south shore one can enjoy superb views of the High Peaks to the north. Historically, there may have been a path leading to the pond from the Blue Ridge Road near Balancing Rock. However, very little remains of that route beyond a half mile or so from the glacial erratic. Furthermore, this route to the pond seems to have crossed a fair amount private property along the way. Therefore, there are three possibilities for a new foot trail to this pond.

The first involves use of the old path almost as far as the private property boundary and then paralleling the boundary around the corner and following the outlet up to the pond itself and the abutments of an old dam at this site.

The second option for a trail is to the east of the private property. From the Blue Ridge Road there is evidence of another old road that must have provided access to the Norway spruce plantation along it as it heads generally north for ½ mile or so before petering out as it reaches the property line. From this point or thereabouts, it would be possible to construct a new trail to the northwest through the thick spruce-fir and around occasional cedar swamps to reach the pond after another 3/4 of a mile or so. However, this route might be quite wet at certain times of the year, and a new parking area would have to be constructed if this trail location is chosen.

The third option is to make use of the existing parking lot and primitive campsite where the Blue Ridge Road crosses the Boreas River. A trail could cross the Wolf Pond outlet and then parallel it as far as the pond. The third route is the preferred alternative as it traverses fewer wetlands, takes advantage of an existing parking area, primitive campsite, and pit privy, and steers well clear of private property. This route will require a bridge across Wolf Pond Brook at the trail's beginning and another bridge over the brook just before the trail reaches the pond. The trail will continue along the south shore of the pond to the site of the proposed lean-to. The trail will be sited so as to minimize travel through wetlands, if possible.

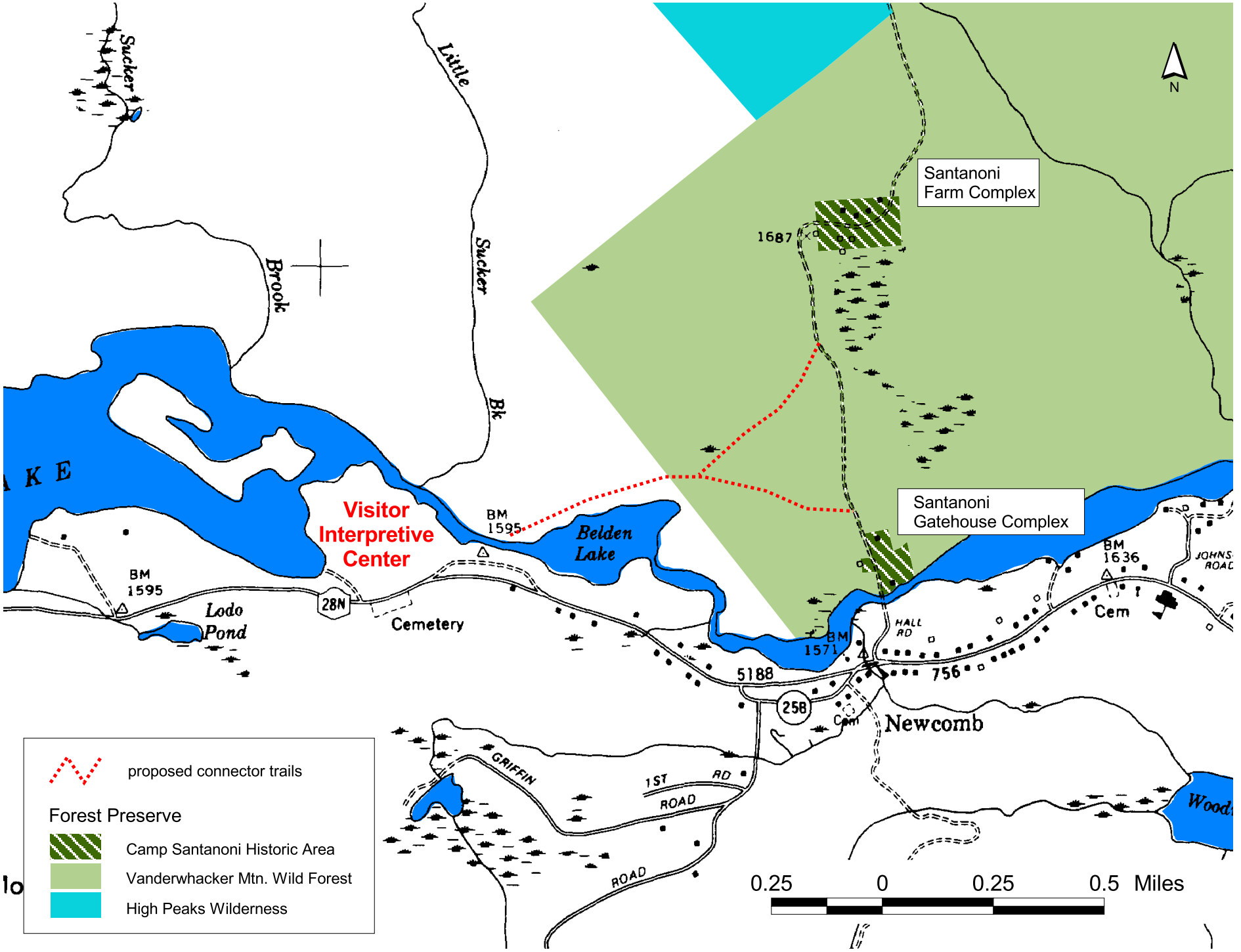

N
VANDERWHACKER MTN.
Andrew
Brook
proposed lean-to site
Wolf
Pond
Option #2
Option #3
proposed trail
Brook
WILD FOREST
remnant of
old path
remnant of
old road
Pond
Wolf
ROAD
BM
1932
BM
1878
BOREAS
Private
Sand
1832
HOFFMAN NOTCH WILDERNESS
28
0.25
0
0.25
0.5 Miles

VIC-Santanoni connectors (Town of Newcomb)

As discussed in the Management Issues and Desires section of this plan, the Newcomb APA Visitor Interpretive Center (VIC) (owned by College of Environmental Science and Forestry (SUNY ESF) and leased by APA) and the Camp Santanoni Historic Area (CSHA) are popular, year-round, State-run facilities, separated by a small section of VMWF. However, despite their proximity, users who intend to visit both must currently drive via Route 28N in order to do so. Therefore, it is proposed, as suggested and discussed in the CSHA UMP, that two interpretive foot trails be constructed, connecting the Santanoni Gatehouse Complex and Farm Complex to the VIC property. Trail layout will be coordinated with APA and SUNY ESF in order to connect to existing VIC trails in the vicinity of the Rich Lake dam. SUNY ESF has informally agreed to the trail construction, but VIC will obtain formal approval from SUNY ESF prior to construction. This trail will be open to hiking, skiing, and snowshoeing. Bicycling will not be an allowable use on this trail, since it is not allowed on VIC trails. Total trail mileage on VMWF will be approximately 1 mile. The Student Conservation Association (SCA), SUNY ESF students, of VIC staff may develop interpretive signage for the trail, that may include numbered markers on posts at intervals along the trail and an accompanying brochure.

Construction of this trail mileage is unlikely to result in any significant increased use of either area, but of course, this is difficult to predict. It is thought that connecting trails may entice some users of the VIC to visit CSHA (and vice versa), who may not have originally planned to do so. However, because of distances (via the proposed trail, the distance between the VIC and the Farm Complex is more than 1.5 miles), the connecting trails are more likely to appeal to visitors who had already planned to visit both facilities but may have planned to drive between the two, perhaps alleviating some of the parking pressure at CSHA.

In addition, construction of the new trails effectively creates a loop trail between the Gatehouse Complex and the Farm and may serve to disperse use from that portion of Newcomb Lake Road.

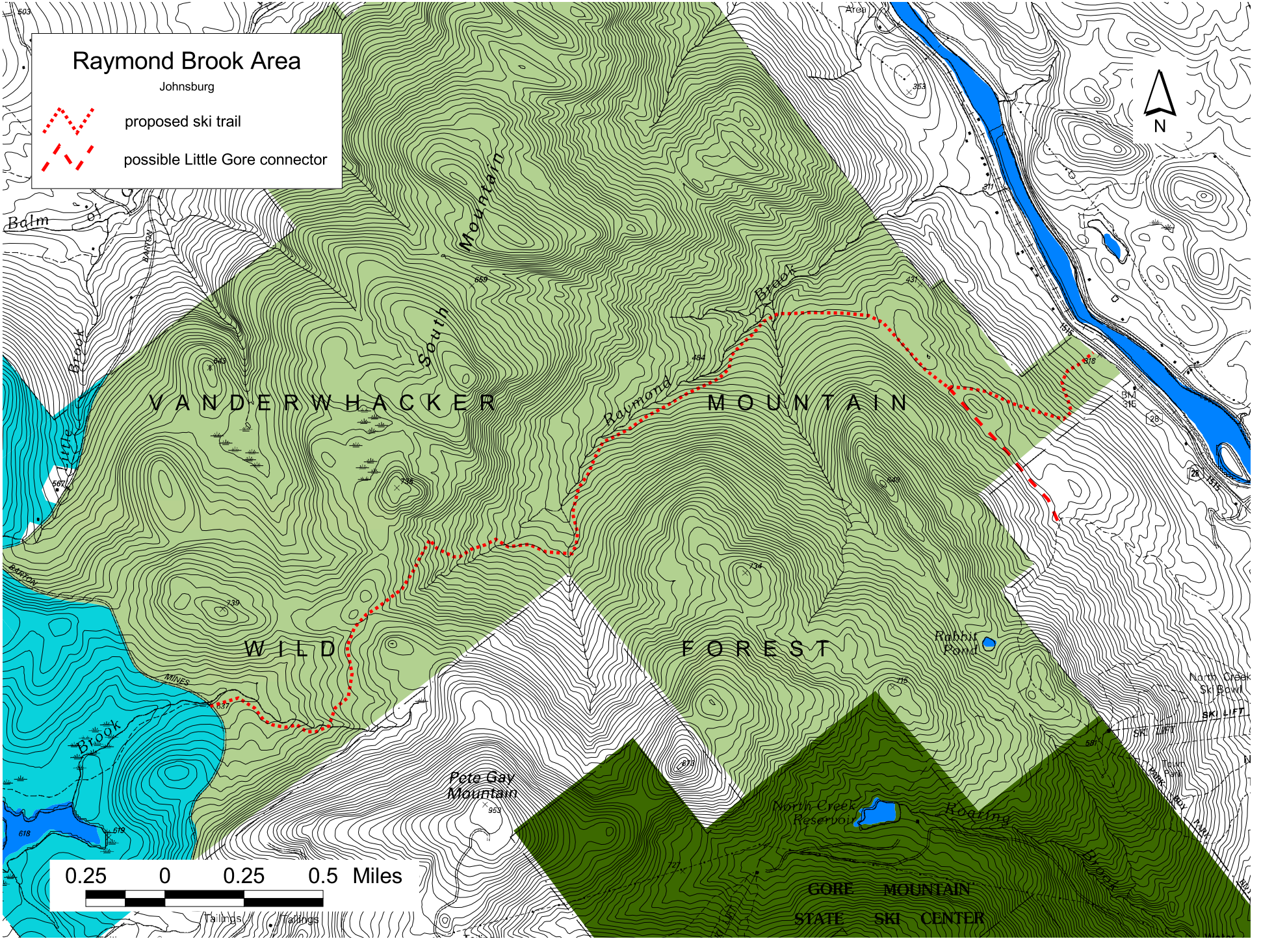

Santanoni
Farm Complex
Santanoni
Gatehouse Complex
Visitor
Interpretive
Center
Belden
Lake
Lodo
Pond
Cemetery
Newcomb
Little
Sucker
Bk
Brook
Sucker
BM
1595
BM
1595
BM
1636
BM
1571
1687
5188
756
28N
258
HALL
RD
GRIFFIN
1ST
RD
ROAD
ROAD
Cem
Cem
N
proposed connector trails
Forest Preserve
Camp Santanoni Historic Area
Vanderwhacker Mtn. Wild Forest
High Peaks Wilderness
0.25
0
0.25
0.5
Miles

Raymond Brook nordic ski trail (Town of Johnsburg)

In the middle of the twentieth century, a network of ski trails was operated on and around Gore Mountain and Pete Gay Mountain on state and private land. Some of these trails on private land were eventually closed, others became part of Little Gore (also known as the North Creek Ski Bowl), and still others on state land became a part of what is now Gore Mountain Ski Area. An unmarked ski trail that exists in the vicinity of Balm-of-Gilead Mountain in the Siamese Ponds Wilderness Area (SPWA) may also have been a part of this network. This trail connects the Old Farm Clearing trailhead in SPWA to Barton Mines Road and receives moderate winter use. The SPWA UMP proposes designation of this herdpath as a marked DEC trail.

A continuation of this trail, which runs through the Raymond Brook drainage, will be partially re-opened. The new complete trail will run from SPWA, across Barton Mines Road, and eventually connect with State Route 28N just north of the hamlet of North Creek. If an agreement can be reached with the neighboring private owner(s), a short trail will connect from Forest Preserve to existing ski trails on Little Gore (See map). The Town of Johnsburg has indicated that they have arranged for permission to cut and mark ski/hiking trails from the North Creek Ski Bowl across this private land to the state boundary. In this way, the new trail will connect the existing unmarked ski trail in Siamese Ponds Wilderness Area with the hamlet of North Creek. There will also be the opportunity to drive up Barton Mines Road and ski down.

The section from Barton Mines Road to the old trail in the vicinity of an old ski shed, will be comprised of new construction for a distance of approximately 1.5 miles. The middle section will follow the old trail and will require blowdown removal and installation of erosion control devices. The lower section will be a combination of new construction and upgrade of existing paths and skid roads on recently purchased property. A parking lot will be constructed adjacent to Barton Mines Road, and an existing clearing along Route 28N will be utilized for parking at the lower end of the trail.


Raymond Brook Area
Johnsburg
proposed ski trail
possible Little Gore connector
N
VANDERWHACKER MOUNTAIN
WILD FOREST
South Mountain
Raymond Brook
Little Balm Brook
Balm of Gilead
Barton Mines Brook
Pete Gay Mountain
Rabbit Pond
North Creek Reservoir
Roaring Brook
North Creek Ski Bowl
SKI LIFT
GORE MOUNTAIN STATE SKI CENTER
0.25 0 0.25 0.5 Miles
Tailings
Tailings

Camp Santanoni-Lake Harris Campground connectors

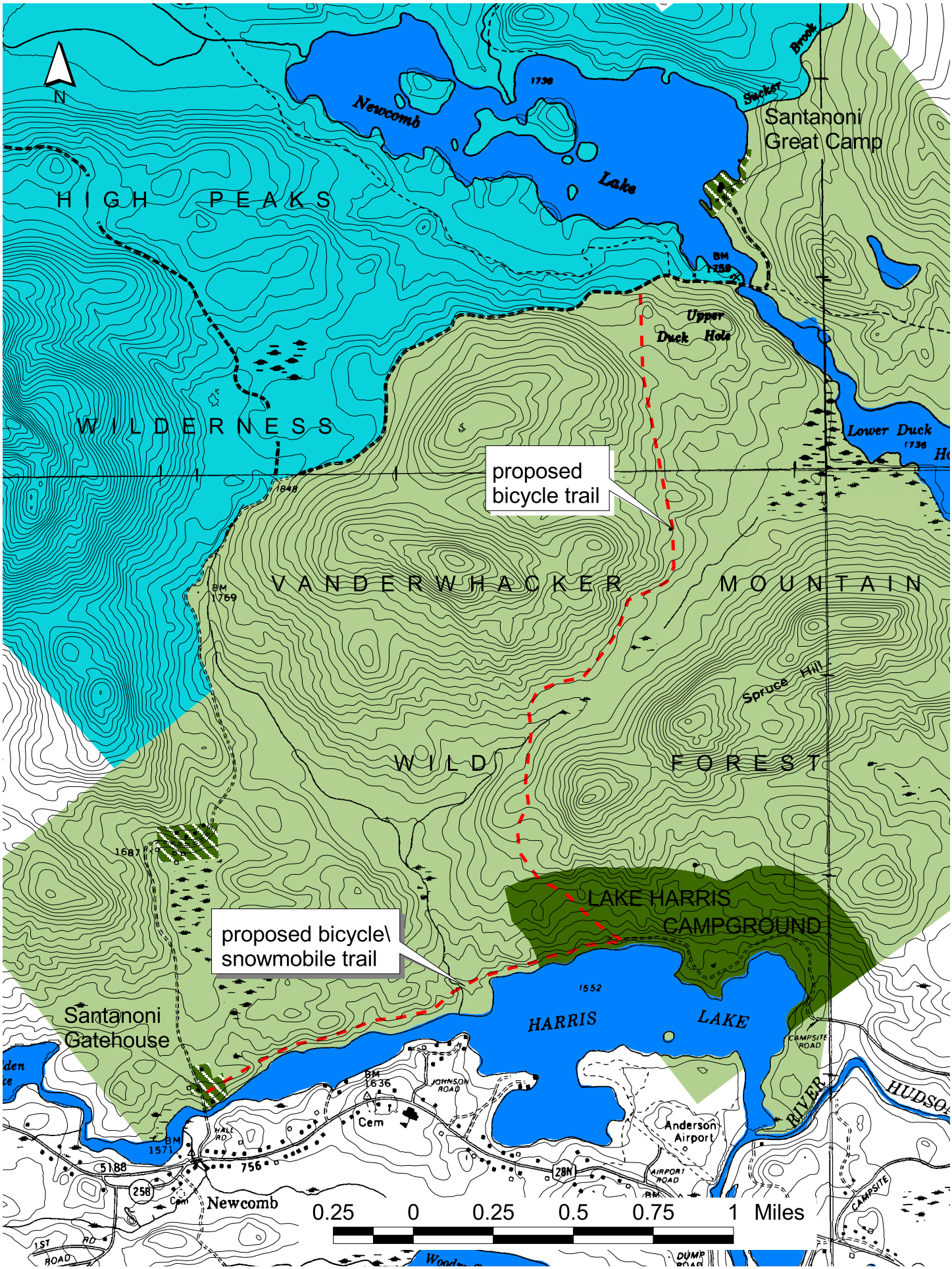
As outlined in the earlier discussion of Management Issues and Desires, the Camp Santanoni Historic Area (CSHA), including the Newcomb Lake Road which runs through it, is quite popular with the public, including nordic skiers, bicyclists, hikers, horseback riders, and patrons of horse and wagon livery services. In addition, families staying at the nearby state campground during the summer months are frequent visitors to CSHA. The campground and CSHA are separated by a parcel of Forest Preserve that is classified as VMWF. In order to facilitate easier travel between the campground and CSHA, provide an enjoyable loop trail, and alleviate pressure on CSHA parking facilities, two trails across VMWF between the campground and CSHA are proposed. These trails would be designed and constructed to be used as hiking, bicycling, snowshoeing, and nordic ski trails. And in one case, the trail would also be designed for snowmobile use.

It is difficult to predict whether construction of this trail mileage may result in any significant increased use of the Historic Area. Since all terrain bicycle (ATB) use on the Newcomb Lake Road is well-established, an expanded network in this area may attract increased numbers of ATB'ers. However, LAC indicators and standards on soil erosion and impacts to vegetation will be developed to monitor and address negative impacts, if needed. Seasonal closures may also be utilized, if necessary. It is thought that connecting trails may entice some ATB'ers to visit CSHA, who may not have originally planned to do so. However, it may be that the connecting trails are more likely to appeal to campground visitors who had already planned to visit CSHA, but may have planned to drive between the two. In this way, the new trails may alleviate some of the parking pressure at CSHA. In addition, by creating a loop from the Campground to CSHA, the new trails may serve to disperse use from the Newcomb Lake Road.

The potential for increased conflicts between equestrian users and ATB'ers exists, given new ATB trail construction in this area, but reported instances of user conflict on Newcomb Lake Road have been relatively low. Most users expect to see a wide variety of recreationists using the road, and thus are considerate and appropriately careful. Signage, making users aware of the types of other uses they may encounter during their trip and encouraging them to follow trail etiquette, such as the International Mountain Biking Association's (IMBA) "Rules of the Trail", will go a long way towards reducing user conflict, should it increase significantly.

Gatehouse Complex - Lake Harris Campground - a bicycle trail between these two points, which will also serve as a snowmobile trail, is proposed in Section 4 of this UMP. There is currently a well-used foot trail connection between the campground and CSHA via VMWF, but it is a rough and narrow trail, unsafe for bicycle traffic. Furthermore, in the past there had been reports of injury and user conflict on the foot trail between hikers and bicyclists, and consequently, the trail was posted against bicycle use. Currently, campers must either walk their bicycles along the one mile foot trail through VMWF to CSHA or drive via 28N. A trail between the campground and the Camp Santanoni gatehouse complex should be created to allow bicycle travel, given the suitability and popularity of Newcomb Lake Road for that use. Furthermore, this trail would likely alleviate parking pressure in the Historic Area as it would make it possible for families to bike rather than drive from the campground. Modified IMBA guidelines will be followed in the layout and construction of this trail (Appendix O). This proposed trail would be used in the winter as a section of a longer snowmobile trail facilitating access between the hamlets of Newcomb and Minerva. This trail will require at least one new bridge. The existing foot trail should remain, as it provides frequent views of the lake while the proposed bicycle/snowmobile trail will not.

Great Camp Complex - Lake Harris Campground - a bicycle/foot trail between these two points is also proposed. Such a trail will provide another route to the Great Camp Complex for patrons of the state campground as well as other users, providing a change of scenery for the return trip, dispersing use of the Newcomb Lake Road and alleviating parking pressure in the Historic Area. This trail should be designed for bicycle use (if possible), and therefore will avoid wet areas and steep slopes. Since the trail is meant to be traveled by multiple user groups, care will be taken to locate the trail such that sharp corners are also minimized. Modified IMBA guidelines will be followed in the layout and construction of this trail. The trail will be approximately 2 miles long and is outlined on the following map.


N
HIGH PEAKS
WILDERNESS
VANDERWHACKER MOUNTAIN
WILD FOREST
Newcomb Lake
Santanoni Great Camp
Upper Duck Hole
Lower Duck
proposed bicycle trail
proposed bicycle\ snowmobile trail
LAKE HARRIS CAMPGROUND
Santanoni Gatehouse
HARRIS LAKE
Anderson Airport
Newcomb
Spruce Hill
0.25 0 0.25 0.5 0.75 1 Miles

North Country National Scenic Trail (NCNST)

The North Country National Scenic Trail is a national trail administered by the National Park Service, that when complete will wind through several northern states as it leads from North Dakota to New York. The section through the Adirondacks does not currently exist, however, the final route will likely use existing trails and some new trail construction. At the time of development of this UMP, there were several proposed routes through the Park, most of which pass through VMWF. The Department plans to finalize the entire route through the Adirondack Park in the coming years.

The trail will likely enter VMWF along its shared border with either the Hudson Gorge Primitive Area or the Siamese Ponds Wilderness Area. Problem areas include crossing the Hudson River, as there are only 2 existing bridges between the hamlet of North Creek and the Hudson Gorge (State Route 28N and the D&H Railroad bridge). Once across the river, the trail will generally make its way through the main body of VMWF on its way towards Hoffman Notch Wilderness Area and/or other points east.

It may connect points of interest directly or intersect with trails leading to various points of interest, such as the old Minerva Iron Company mine on Green Mountain. The NCNST could pass directly by the mine site or a short spur trail could be developed to it, with signage highlighting the history of the mine, the local iron industry and the Town of Minerva. Other points of interest might include Vanderwhacker Mountain, the Boreas River, Stony Pond, Green Mountain, or other areas. It may also intersect with spur trails leading to hamlet centers so that travelers can purchase supplies. Two such spur trails could be the southern end of the Stony Pond snowmobile trail and the so-called "Minerva woods road" (discussed in greater detail on page 182). Each trail leads fairly close to the hamlet of Minerva, which could serve as a refueling stop for trail users.

Other existing routes that could be used in creation of the NCNST in the VMWF area include the Boreas River loop trail, the Linsey Marsh trail, the Hewitt Pond trail, the Irishtown-Cheney Pond trail, the D&H railroad tracks, as well as numerous town roads. New trails proposed in this UMP may also be appropriate for inclusion in the NCNST including, the Raymond Brook ski trail. Of course, the final route through VMWF will be determined through formal revision of or amendment to this UMP.

Stony Pond snowmobile trail

The portion of the trail between 28N and Stony Pond would benefit from several work projects depicted on the following map.

Site #1 - For a distance of approximately 200 feet, install drainage devices (water bars or broad-based dips).

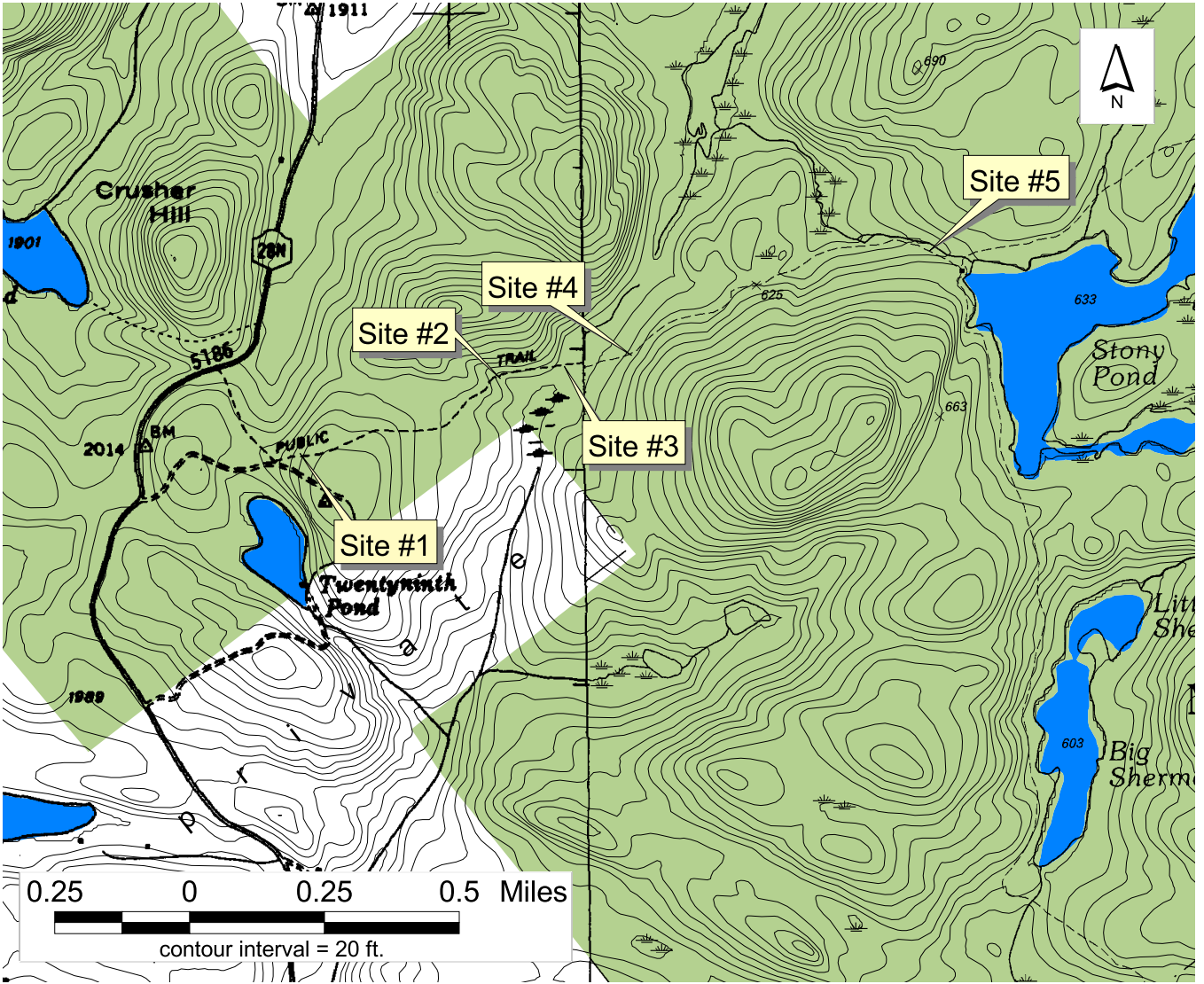
Site #2 - This intermittent stream crossing needs a 20-25 foot bridge.

Site #3 - A 30-foot bridge should be constructed at this crossing.

Site #4 - Drainage devices (waterbars) should be installed at this location.

Site #5 - Drainage devices (waterbars) should be installed at this location.

Bridge(s) will be constructed of a width appropriate to Department snowmobile trail standards. Wetlands permits, if appropriate, will be sought prior to commencement of bridge work.


Site #1
Site #2
Site #3
Site #4
Site #5
N
Crusher Hill
Twentyninth Pond
Stony Pond
Big Sherm
TRAIL
PUBLIC
BM
1911
1901
1989
2014
5186
690
625
633
663
603
0.25 0 0.25 0.5 Miles
contour interval = 20 ft.

Updates to APA State Land Map (2003)

There are a small number of inaccuracies on the most recent version of APA's State Land Map (2003) regarding VMWF. The Agency and the Department will work together to investigate them further and update them in future revisions to the map to reflect actual state ownership and land classification, if necessary.

- The western half of Lot 37 in Bailey's Patent of Township 25 is State-owned, but shown as private land on the map.
- Lot 93 of Hoffman Township is shown as wholly state-owned, but may be only partially State-owned.
- State ownership of Lot 94 of Hoffman Township should be determined and appropriate changes made to the map.
- In Township 45, the state owns the portion of Lot 14which lies in the Town of Newcomb. The portion of Lot 14 within the Town of North Hudson is not state-owned.
- Certain lands on the south shore of Hewitt Lake (in the vicinity of Lots 108 and 109 in T&C Township 26) are posted as private land, however the map depicts these lands as state-owned. State ownership of any portion of Lot 108 should be determined and appropriate changes made to the map or physical boundary lines.

Development of loop trail from 28N in Newcomb

VMWF has very little frontage along Route 28N in the Town of Newcomb. In fact, there is just one stretch (less than 600 feet long), located about ½ mile west of the cemetery. In this general area, there is a disjointed network of remnant skid trails and old hunters' paths, that may be appropriate for future development for use by skiers and hikers. However, sufficient resources were not available during the development of this UMP to investigate this area to the degree necessary. Therefore, this only direct VMWF access in Newcomb from Route 28N should be investigated and consideration given for development of a trailhead and construction of a loop trail(s) using a combination of remnant paths and new construction in future revisions of the UMP. Additionally, a plowed parking pull-off or lot should be considered.

Lean-tos

In accordance with the APSLMP, in units classified as Wild Forest "new... lean-tos... located on shorelines of lakes, ponds, rivers, or major streams... will be located so as to be reasonably screened from the waterbody to [a]void intruding on the natural character of the shoreline and the public enjoyment and use thereof. Any such lean-tos... will be set back a minimum of 100 feet from the mean high water mark of lakes, ponds, rivers, or major streams" (pg. 33). Associated pit privies will be located " a minimum of 150 feet from any lake, pond, river, or stream" as outlined in the APSLMP (pg. 33).

There has been much discussion and public request for construction of additional lean-tos in VMWF. To date, there is but one lean-to within the unit (at Stony Pond), which according to registry as well as anecdotal information, is often used, although not over used. Many locations for new lean-tos were suggested and have been considered. In general, sites on waterbodies were the most frequently suggested, for obvious reasons. These included sites on: Cheney Pond, Lester Flow, Wolf Pond, Vanderwhacker Pond, Newcomb Lake, Muller Pond, the Hudson River, the Boreas River, and other smaller bodies of water.

Several overlapping criteria were used in determining suitable, general location for a lean-to. A preference was shown to locations deemed to have a more scenic quality. This criterion, of course, favored ponds and rivers. Bodies of water offer multiple benefits, as they would likely attract anglers as

well as other users. Another major criterion was projected level of use. The sites were chosen according to the likelihood they would be visited, as well as their distance from a motor vehicle route. Sites less than one mile from a road would be more apt to become "party spots" and suffer from littering and vandalism. Sites that were likely to attract many types of users were also preferred. For example, sites that could be reached via somewhat level trails were favored, because they would be easier to access year-round. Environmental sensitivity was also a factor in general lean-to location. For example, some of the more remote ponds were eliminated for fear that non-native fishes might become established, if facilities were developed. Lean-tos are also often located at intervals along trails that may require several days to traverse. VMWF currently has no such trails. However, when the North Country National Scenic Trail is developed, such a lean-to may be appropriate in VMWF.

In regards to specific location, lean-tos will be set at least 150 feet from water and trails, whenever possible. They will be restricted to drier sites. Wetlands and steep slopes will be avoided. A privy, picnic table, and a stone and cement fire place will also be constructed at each lean-to site. The following sites were chosen for lean-to construction:

Wolf Pond - As discussed previously in this section under "Foot Trails", a trail will be developed to Wolf Pond. The pond is located approximately one mile north of the Blue Ridge Road in the Town of North Hudson; however the proposed trail will be about 2 miles long. It is close enough to the road to make it an easy destination for most users, but not too close as to become a "party spot." Standing on its southern shore, one is treated to a breathtaking skyline including several High Peaks. The pond is regularly stocked with brook trout, and may therefore attract anglers. Materials for the lean-to would have to be flown in by helicopter.

Cheney Pond (east shore) - Cheney Pond is located in the Town of Minerva approximately 3/4 mile from the Blue Ridge Road. There is an access road leading to the western edge of the pond, making it a popular camping destination. A lean-to will be built on the sandy eastern shore where there is a primitive campsite. A pit privy will be re-built to replace one that burned down several years ago. The only access will be by boat, or across the ice in winter, as there are no plans to develop a foot trail. Materials for lean-to construction would be brought in by snowmobile across the pond. Construction would begin the following spring or summer.

All lean-to construction projects will incorporate the use of Best Management Practices, including but not limited to such considerations as:

- Locating lean-tos to minimize necessary cut and fill;
- Locating lean-tos to minimize tree cutting;
- Locating lean-tos away from streams, wetlands, and unstable slopes;
- Use of drainage structures on trails leading to lean-to sites, to prevent water flowing into site;
- Locating lean-tos on flat, stable, well-drained sites;
- Limiting construction to periods of low or normal rainfall.

Other locations were considered and determined to be appropriate, at least preliminarily. Therefore, it is suggested that the following locations be considered in future revisions of the UMP:

- North Country National Scenic Trail - possibilities may exist pending the development of this trail.
- Newcomb Lake (Lower Duck Hole) - A lean-to could be constructed on the south shore of the lake and accessible via a spur trail from the proposed Lake Harris - Santanoni Lodge Complex trail. The lean-to would provide a camping opportunity close to, but a bit removed from Camp Santanoni.

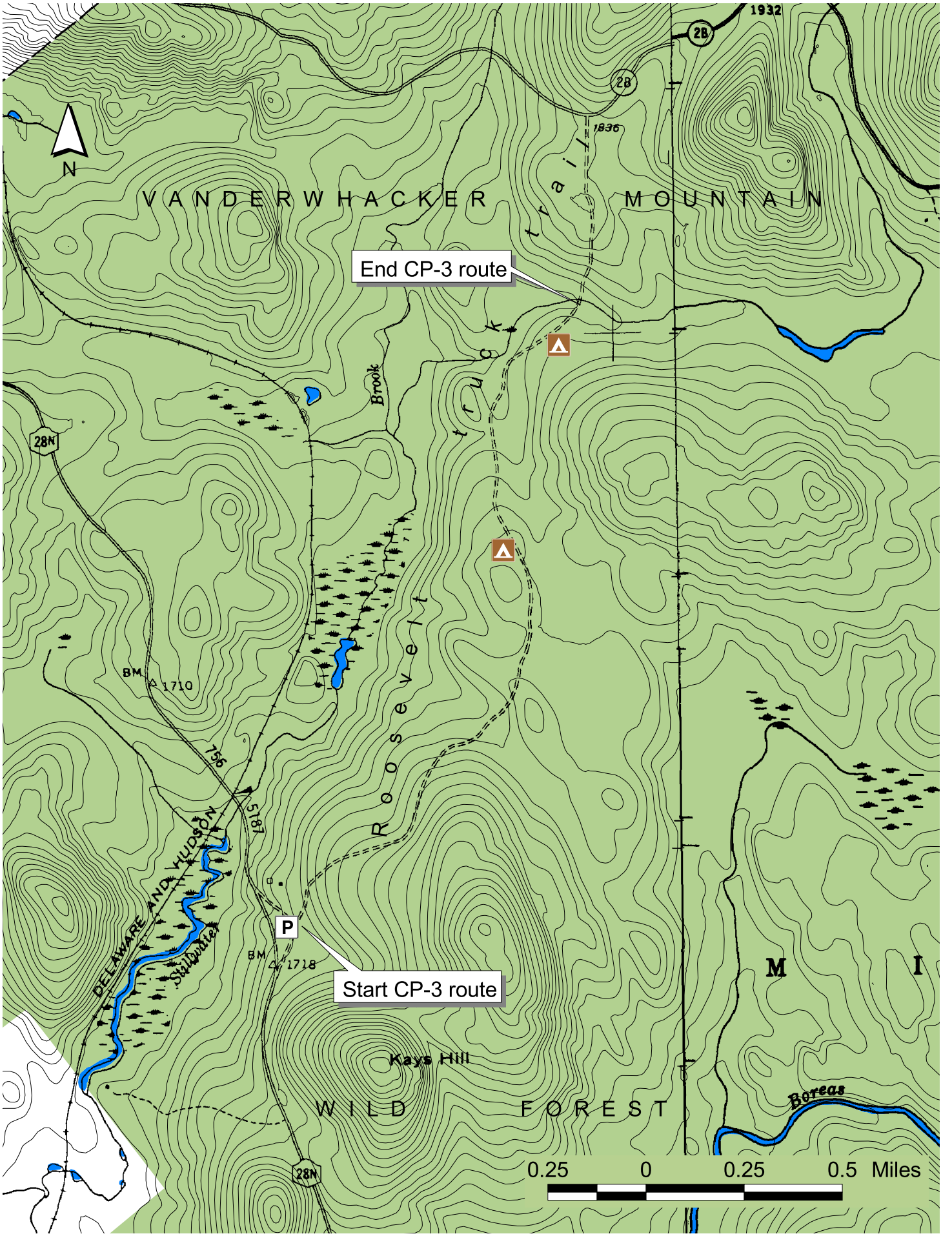
Other sites were investigated, but were determined to have considerable shortcomings. In particular, two sites along the Hudson River in the Town of Newcomb were considered. These sites are downriver from the 28N bridge; one just below Long Falls and the other 1½ miles or so below Ord Falls. It was hoped that one or both might be accessible by both foot and boat. Boaters could depart from several locations in Newcomb, spend a night at the lean-to, and return via the same route. However, Long Falls and Ord Falls as well as other unnamed rapids, present a challenge. Users with moderate boating ability would be able to reach the northernmost site, but returning up Long Falls by boat is near impossible without portage. Additionally Ord Falls is considered a Class III rapids, and should be attempted by experienced boaters only. Thus the hope of making the site accessible to most users by boat was short-lived. Difficulties also exist in regards to foot trail access. Appropriate access by foot should be developed from the end of Chaisson Road to the northeast. However, there is no state frontage on the road and any trail must necessarily cross private property. Therefore, it is suggested that consideration of these sites be suspended until access from Chaisson Road or a portage around Long Falls is possible. It was suggested that these sites be accessed via a trail starting from Route 28N approximately ½ miles west of the cemetery. However, such a trail would necessarily travel for quite some distance through a large spruce-fir wetland. Access from Chaisson Road would certainly be preferable, if it can be obtained.

Roosevelt truck trail

In the recent settlement of *Galusha vs. DEC*, the Department agreed to open a number of roads to vehicle use by persons with disabilities. Although the Roosevelt truck trail was not included in the list developed in this settlement, a handful of other roads were included that possess a much lower capacity to withstand vehicle traffic. One in particular was the Arrow road, located in the Towns of Stony Creek and Thurman in the nearby Wilcox Lake Wild Forest. The DEC has approached the other parties to the Consent Decree and reached an agreement to substitute the Roosevelt truck trail (and other road(s) in the WLWF) for the Arrow road.

The Roosevelt truck trail, approximately 2.5 miles in length, is a road currently open to administrative use only and is located in Minerva. It is located generally east of Vanderwhacker Brook, and connects State Route 28N to the Blue Ridge Road. Current public use of the road likely consists of limited local use for hunting and nordic skiing. Since it is an existing administrative road, it is much better suited to CP-3 permitted ATV use than the Arrow road. The area along the Roosevelt truck trail can also provide similar opportunities to the public as the inclusion of the Arrow road in the Consent Decree was meant to achieve, namely camping and hunting opportunities.

Two accessible primitive tent sites (including accessible pit privies and fire rings) will be constructed to ADAAG along the road in the approximate locations as shown on the following map. In addition, the existing small parking area at the south end of the road will be expanded to meet ADAAG. The road will be opened to CP-3 permit holders for a distance of 2 miles, from its southern end to a bridge over an unnamed tributary of Vanderwhacker Brook. A gate will be installed to prevent vehicle traffic beyond this point and a small turn-around area will be constructed. The road may be closed to motor vehicle traffic seasonally, in order to protect the road from damage from use during mud season.


N
VANDERWHACKER MOUNTAIN
End CP-3 route
Start CP-3 route
P
Roosevelt trail
Brook
28N
28
1932
1836
BM 1710
756
5187
DELAWARE AND HUDSON
Skidoutier
BM 1718
Kays Hill
WILD FOREST
Boreas
0.25 0 0.25 0.5 Miles

Balfour Lake Canoe Launch

Generally lanceolate in shape, Balfour Lake in the Town of Minerva is roughly 1 mile long and around 500 to 1,000 feet across for the better part of its length - occupying an area of approximately 91 acres. Prior to 2000, state ownership on the lake was limited to lands along the southwestern shore. Thus public access to the lake was limited and no canoe launching facilities were available to the public. In 2000, the People of the State acquired a 53-acre parcel of land on the northeastern shore, enabling direct public access to the lake from Route 28N for the first time. Following public acquisition and posting of the property as Forest Preserve, the site began to receive informal and occasional use for picnicking, fishing, and as a public hand launch.

There are a few other opportunities for public hand launches nearby, including Minerva Lake and Cheney Pond, though neither are in the immediate area. Cheney Pond is approximately 14 miles away by car and Minerva Lake is approximately 7 miles away. During the drafting of this UMP, the Department received numerous requests from the public to improve or provide canoe launches at several waterbodies in the area, including Balfour Lake.

The western shore of Balfour Lake is largely undeveloped, the southern half being state land and the northern half private lands classified by the APA as Resource Management. Two children's summer camps and several seasonal and year-round residences are scattered around the remaining lake shore. At present, boat use of the lake is highest when the summer camps are in session - generally for a seven-week period beginning in late June and lasting until mid-August. There are about 350 campers between the two summer camps, so this is a period of potentially high use. Thus, the size of the parking lot for the proposed canoe launch will be used to limit the number of users that can access the lake from the state parcel at any given time. The parking area will be relatively small - providing space for up to four vehicles. Furthermore, the site will be for the launching of canoes, kayaks and similar motorless water craft, and therefore will be designed to prevent the launching of trailered boats. DEC will work in consultation with APA to achieve this aim.

Neither regulations on horsepower limits nor motor restrictions altogether are proposed for this site due to the difficulty in enforcing such regulations given the numerous private properties around the lake from which such vessels are currently launched. Rather the overall design of the site will be to preclude the launching of power boats. From time to time, the more vigorous may attempt to carry small electric or gasoline motors to the water's edge. Although the use of such low power engines would generally be compatible with current use on the lake, an important design goal of the proposed canoe launch site will be to make this an uncommon occurrence.

The property includes a small field adjacent to the lake and partially separated from the highway by an old, low stone fence. The old field has two historic vehicle access points from 28N that are currently blocked. The two access points can be used to construct a drive through parking area for 4 cars close to the road. Boulders, bollards, or similar devices will be installed around the perimeter of the lot to keep vehicles from entering the field and pulling a trailered boat to the lake. The site will be assessed to determine whether the proposed canoe launch can be constructed to ADA Accessibility Guidelines.

Through the measures described above, the proposed canoe launch should have little adverse impact on the physical, biological, and scenic resources of the waterbody and surrounding land. Furthermore, the site will be designated as day-use only; camping at this location is currently prohibited and will remain so. Overnight parking at the canoe launch parking area could also be prohibited. Such a prohibition may require the promulgation of a new regulation or may be enforced under 6 NYCRR §190.8(p), which provides that "No person shall fail to comply with the instructions contained on a sign of the Department of Environmental Conservation."

APPENDIX K: Facilities Map

VANDERWHACKER MTN.
WILD FOREST AREA

EXISTING FACILITIES — 100 Foot Contour Interval

- Wilderness Area
- Primitive Area
- Wild Forest Area
- Intensive Use Area
- Historic Area
- Pending Classification
- Parking Area
- Firetower
- Foot Trail
- X-Country Ski Trail
- Snowmobile Trail
- Truck Trail
- Campsite
- Leanto
- Hand Carry Canoe Launch
- Barrier

PROPOSED FACILITIES

- Parking
- Hiking
- X-Country Ski Trail
- Snowmobile Trail
- Leanto
- Canoe Launch

N

VANDERWHACKER
HUDSON GORGE
HOFFMAN NOTCH
SIAMESE PONDS
SANTANONI
Newcomb
Irishtown
Olmstedville
Pottersville
Blue Ridge
North Creek
Minerva
Riparius
Chestertown

Lake Andrew · Cheney Pond · Shaw Pd. · Ward Pd. · Beaver Pond · Sanford Lake · Dudley Bk. · North River Mountains · Slide Bk. · Twin Bk. · Skylight Bk. · Snyder Bk. · Clear Pond · Niagara Bk. · Newcomb Lake · Beaver Flow · Perch Pond · Trout Pond · Fly Lake · LeClair Bk. · Little Sucker Bk. · Harris Lake · Harris L. · Woodruff Pond · Zuck Pond · Wolf Pond · Brant Bk. · Boreas · Vanderwhacker Pond · Wolf Pd. · Sand Pd. · Durgin Bk. · Cheney Pond · Lester Flow · Gulf Brook · Sand Pd. Bk. · Hoffman Notch Bk. · Aber Bk. · Platt Bk. · Big Marsh · Marion Pond · Bailey Pond · Bailey Inlet · N. Branch Trout Bk. · E. Branch Trout Bk. · Black Pond · Hewitt Pond · Hewitt Eddy · Hewitt Pd. Bk. · Stony Pd. Br. · Stony Pd. Bk. · Barnes Pond · Balfour Lake · Rankin Pd. · Bullhead Pond · Sherman Ponds · Center Pd. · Falls Bk. · Bigsby Pond · Oliver Pond · Muller Pond · Muller Rd. · Loch Trout Bk. · Big Pond · North Pond · Bullet Pd. · Horseshoe Pd. · Horseshoe Pond Rd. · Rogers Bk. · Thurman Pond · Marsh Pond · Thilo Rd. · Hill Rd. · Carl Hill Rd. · Cheney Pond Rd. · Stream · Moose Pond · Moose Pd. Rd. · Moose Pd. Bk. · Fish Pd. · Split Rock Pond · Beaver Pds. · Mink Pond · Nate Pd. · Nate Pd. Bk. · Grassy Pond · Thumb Pond · Hotwater Pond · Howe Marsh · Powers Bk. · Dunk Pond · Huntley Pond · North Woods Club · Pine Mtn. Pd. · Whortleberry Pond · Cranberry Pond · O K Slip Pond · Big Bad Luck Pd. · Ross Pd. · Bell Mtn. · Black Mtn Pds. · Griffin Bk. · Sunnyview Farm Rd. · Fourteenth Rd. · Clear Pond · Mud Pd. · Long Pd. · Fuller Pond · Carter Pond · Bird Pond · Byrnes Rd. · Igerne Rd. · Harrisdale Rd. · N. Gore Rd. · Fuller Bk. · Schroon Lake · Scaroon Manor · E. Shore Rd. · Warner Pd. · Mtn. Spring Lake · Smith Pd. · Alligator Pond · Loon Lake · Wamsley Rd. · Ramsey Road · Pat Pd. · Alder · Trout Brook · Peaked Mtn Pond · Peaked Mtn Brook · Thirteenth Lake · Hour Pond · Twin Ponds · Botheration Pond · Halfway Bk. · Second Pond · Second Pd. Bk. · Round Pd. Bk. · Chatiemac Lake · Chatiemac Bk. · Buck Meadow Flow · E. Branch Sacandaga River · Roaring Bk. · Gore Mtn. Ski Center · Straight Bk. · Raymond Bk. · Harvey Rd · Rogers Rd. · Gilhead Bk. · Balm Of · Collins Bk. · Austin Pond · Waddell Rd. · Johnson Rd. · Back to Sodom Rd. · Vanderwhacker Bk. · Little Vanderwhacker · Wolf Creek · N. Branch Wolf Bk. · Goodpow Flow · Hudson River · Beaver Bk. · Newcomb R. · Tahawus Rd. · Indian Pass Brook · Dudley Bk. · Snyder Bk. · The Branch · Clear Pond · Niagara Bk. · Lake Rd. · Elk Lake Rd. · Blue Ridge Road · Pd. Bk. · Wolf Pd. · Sand Pd. · Durgin Bk. · Hoffman Notch Bk. · Aber Bk. · Platt Bk. · Big Marsh · Marion Pond · Bailey Inlet · N. Branch Trout Bk. · E. Branch Trout Bk. · Black Pond · Hewitt Pond

APPENDIX L: Draft Comprehensive Snowmobile Trail Briefing Document

I. VISION

To develop and maintain an integrated snowmobile trail system on public and increasingly on private land in the Adirondack Park that will provide snowmobilers with an experience that is consistent with the spirit and letter of Article XIV, Section 1 of the New York State Constitution, is respectful of the rights and interests of private landowners, and strives to enhance the vitality of the Park's citizens by providing trail linkages between local communities within the Park.

II. GOALS

1. Protect natural and cultural resources and the wild forest character of public lands in the Park (as envisioned by the Constitution, APSLMP and appropriate laws, rules, regulations) by:

- considering underutilized trails for abandonment;
- utilizing to the maximum extent possible routes on the periphery of Wild Forest Units or parallel and near to travel/transportation corridors for new trail development and, where appropriate, re-designating trails in the interior of Wild Forest Units or in the vicinity of private in-holdings for non-motorized use only;
- focusing on opportunities to route trails on non-state lands wherever possible and encouraging long-term commitment of corridor trail systems on private lands through cooperative agreements with private landowners consistent with the provisions of the OSP;
- establishing a clear set of standards for snowmobile trails and snowmobile related activities on public lands;
- increasing law enforcement resources at all levels to address trespass and deter illegal activity on the trail system and in surrounding public and private areas; and
- providing intelligent and resource protective trail system planning in an overall way rather than dealing with each trail segment individually.

2. Providing a safe, enjoyable snowmobile experience by:

- avoiding unsafe trail conditions;
- minimizing dependency on lake and road crossings;
- encouraging partnerships with the private sector, state and local governments that will provide, maintain and operate snowmobile trails; and
- establishing a clear set of standards for snowmobile trails and snowmobile related activities on public lands.

3. Promoting tourism and economic opportunities for local communities by:

- connecting communities and major points of interest;
- connecting trail systems from outside of the Park;
- connecting to necessary support services (gas, food, lodging, etc.); and
- identifying important snowmobile trail connections.

APPENDIX M: APSLMP Wild Forest Guidelines for Management and Use

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 3l, l987.

(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 leantos, ranger stations, storage sheds, horse barns 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 supervision 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 trail construction, except in rare circumstances requiring the cutting of new trails;

-- wherever feasible such replacement mileage should be located in 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 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 enjoyment 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 of the 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 current 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 17 wild forest areas in the Park.

APPENDIX N: Unit Management Planning Process

The development of unit management plans for classified public lands in the Forest Preserve should follow a stepwise process that will culminate in the preparation of a draft and final unit management plan UMP.

The eight tasks in this process are:

1. Conduct a comprehensive ***Resource and Use Inventory and Analysis.***

2. Develop and implement a comprehensive ***Public Participation Plan***.

3. Prepare a ***Management and Policy Overview***.

4. Propose ***Goals, Objectives, and Management Actions*** for the Area.

5. Prepare a ***Draft Unit Management Plan For Public Review.***

6. Meet appropriate ***State Environmental Quality Review Act (SEQR)*** requirements.

7. Prepare a ***Draft Unit Management Plan for Determination of Master Plan Compliance by the Adirondack Park Agency***.

8. Prepare the ***Final Unit Management Plan***.

The activities associated with these eight tasks are described below.

<u>Task 1</u> - Conduct a Comprehensive Resource and Use Inventory and Analysis

Conduct an inventory of the natural, scenic, cultural, wildlife (including game and non-game species) and other appropriate resources along with an analysis of the area's ecosystems. (See page 9 of the June 2001 version of the APSLMP for minimum necessary information to be contained in each section of the UMP as they relate to the inventories below).

1. Conduct an inventory of natural resources including an assessment of physical resources (geology, soils, topography, water, wetlands, air and climate), biological resources and ecological communities (plant life, wildlife and fish) and scenic resources (travel corridors, observation points, open space and other natural areas) and information, such as the occurrence of general vegetative community types.

2. Conduct an inventory of all existing man-made facilities for public or administrative use in the unit. Conduct an assessment of existing facilities to determine compliance with ADAAG and proposed ADAAG. Utilize the Maintenance Management System (MMS) format for the inventory of all man-made facilities in the unit. All point and line data will be gathered using global positioning system (GPS) technology and organized to be suitable for incorporation into NYSDEC's geographic information system (GIS).

3. Conduct an inventory of past influences and existing cultural and historic resources that are found in the unit.

4. Conduct an inventory of the types and extent of actual and projected public use within the unit. This inventory should involve a review of information gathered at trailhead and waterway access site registers and interviews with NYSDEC staff and the public.

5. Conduct an inventory and evaluation of existing recreational opportunities available to persons with disabilities within the unit.

6. Conduct an assessment of the relationship between public and private land in the vicinity of the unit. This assessment will include an examination of the impacts of public land ownership and use on adjacent private lands and nearby communities, and vice versa.

7. Conduct an assessment of the physical, biological, and social carrying capacity of the resources of the unit, with particular attention to portions of the area threatened by overuse in light of its resource limitations and classification. Identify existing and potential resource concerns related to the impacts of present and projected use on the resources of the area.

8. Identify current activities related to the use of the area for education, interpretation and research.

Task 2 - Public Participation

Develop and implement a comprehensive public participation plan designed to assure participation in the planning process by all stakeholders including , but not limited to, local governments, tourist-oriented businesses, recreation advocates, people with disabilities, environmental groups, and neighboring landowners. At a minimum, the plan must involve:

1. The compilation of a mailing list of all identified stakeholders.

2. The development of a press release and the mailing of an announcement of the beginning of the planning process with a request for comments.

3. The holding of two public meetings at which the public comment will be effectively and efficiently received and recorded. One meeting shall be held early in the planning process to present information about the planning area to the public and to receive preliminary comments. Another meeting shall be held to present the draft UMP and receive public comments on the document. A third public meeting may be required as part of the SEQR process.

4. A description of the methods to be used to analyze oral and written public comments and incorporate them into the UMP. The analysis of public comments should include a review of the existing resources.

5. The preparation of a responsiveness survey which documents a summary of all public comments received.

Task 3 - Prepare a Management and Policy Overview for the Area

Prepare a management and policy overview of the area that identifies the following:

1. Past Management - Assess past management activities in the unit, including NYSDEC management activities, academic research projects and activities undertaken by organizations outside the NYSDEC, such as Americorps.

2. Management Guidelines - Identify existing guidelines for the management, development or other use of the area including provisions of the state constitution, the guidelines and criteria set forth in the APSLMP, the ECL and related rules and regulations, NYSDEC policies and other federal and state laws, rules, regulations, policies and plans that are relevant to the use and management of Forest Preserve lands in the Adirondack Park classified as wild forest. Identify any deed restrictions and deeded private rights that exist for the area.

3. Management Principles - Identify management policies and principles that exist to guide the NYSDEC in managing Forest Preserve units.

4. Issues - Prepare a list of the management issues to be addressed in the UMP that were identified in Task 1.

Task 4 - Propose Management Goals, Objectives, and Actions for the Area

Based on information gathered during the resource inventory, through public input and in consultation with the UMP Team, propose management goals, objectives, and action for the unit.

1. Develop ***Goals and Objectives*** that will guide the management of the area for the next five years. Proposed goals and objectives must reflect existing legal requirements, such as the New York State Constitution, the Adirondack Park State Land Master Plan, and the Environmental Conservation Law, as well as NYSDEC policies and established management principles. They must be refined through an analysis of the area's natural resource characteristics and an assessment of the recommendations made to the NYSDEC by local governments, organizations, and individuals in the course of the public participation process.

2. Work with the UMP Team to identify the specific ***Management Actions*** needed to meet the goals and objectives of the plan. Each action or group of actions proposed to address major issues will be presented along with a complete analysis of alternatives.

Task 5 - Prepare Draft Unit Management Plan

Prepare a Draft Unit Management Plan after completion of Tasks 1-3 above:

1. Prepare an ***Executive Brief*** . The executive brief will list the major management issues identified during the planning process, describe the level of controversy associated with each issue, and describe the management actions proposed to address the issues, along with the alternatives considered.

2. Prepare a ***Preliminary Draft UMP***. The preliminary draft UMP will present the information gathered in Tasks 1 through 3 above and the management goals, objectives, and actions as described in Task 3. The content and organization of the preliminary draft UMP will correspond to the UMP template.

3. After review of the preliminary draft UMP, incorporate necessary modifications, and prepare a ***Draft UMP for Public Review***.

4. Complete a long environmental assessment form (EAF) if necessary. The long EAF is not required when writing an environmental impact statement (EIS).

5. Prepare a positive or negative declaration.

6. Prepare the draft UMP in the form of a draft environmental impact statement (DEIS) if required.

Task 6 - Public Participation - Implement the final steps of a Department-prescribed comprehensive public participation plan. This portion of the public participation plan will involve:

1. The holding of an open house style public meeting to present the draft UMP and receive public comments on the document. The meeting may also serve to meet SEQR requirements.

2. An analysis of oral and written public comments. The results of the comment analysis will be incorporated in the final draft UMP.

3. The preparation of a comment and response summary to be included as an appendix to the final draft UMP.

Task 7 -Prepare Final Draft UMP for Determination of Master Plan Compliance by the Adirondack Park Agency

After review of the draft UMP by the public, incorporate necessary modifications and prepare a final draft UMP for submission to the Adirondack Park Agency. The final draft UMP will be subject to the requirements of the New York State Environmental Quality Review Act. The potential impacts of various, and presently unknown, proposals within the UMP will determine whether an environmental impact statement will be required. If actions recommended within the UMP are deemed to have a significant potential for negative impacts, then appropriate changes will be made in the UMP format to incorporate the required EIS content in to the UMP. The preparation of an EIS will not involve a separate process resulting in the production of a second document, but rather a single UMP/EIS document. The most significant feature of the EIS format will be an alternative analysis for key issues deemed to have a significant potential for adverse impacts. The alternative analysis will be placed under the appropriate issue area heading shown in Section IV, "Proposed Management."

Task 8 - Prepare Final Unit Management Plan

After review of the final draft UMP by the Adirondack Park Agency, incorporate necessary modifications and prepare a ***Final UMP*** for the NYSDEC Commissioner approval. The final UMP will meet the requirements of the State Environmental Quality and Review Act. Prepare a findings statement, if required.

APPENDIX O: All Terrain Bicycle Trail Standards and Guidelines

adapted from International Mountain Biking Association

- Look for and identify control points (i.e., wetlands, rock outcrops, scenic vistas).
- Avoid sensitive areas; wetlands and wherever water collects.
- Use existing roadways where possible that do not exceed grades of 10%
- Clear new trails to a maximum width of four feet to establish a single track route.
- Keep tread width less than 18" along a rolling grade.
- Texture the tread - this is the act of placing natural features, such as small rocks and logs in the trail to help control speed and retard erosion.
- Remove vegetation at the root level - not at ground level.
- Keep routes close to the contour and avoid fall lines where water is likely to flow downhill.
- On side slopes, following the contour, cut full benches to construct the tread. Outsloping in this manner helps to remove water from the trail. Vegetate backslopes.
- Bench cuts on side slopes should be cut to a depth of the mineral soil.
- Build flow into the trail with open and flowing designs with broad sweeping turns.
- Streams should be crossed at ninety-degree angles, preferably across rock or gravel.
- Bridges may be used where steep banks prevent normal stream crossings. The latter may require an APA Wetlands Permit.
- Do not construct skid berms or extensive banked turns that may accelerate erosion.
- Avoid acute, sharp angle turns.
- Plan trails for beginners to intermediate levels of riders.
- Maintain and overall grade of 10% or less.
- Allow short changes in grade to avoid obstacles.
- Design grade dips to break up long, linear sections, and to help divert runoff from the tread.
- Monitor and inspect all trails semi-annually. Address water problems immediately.

APPENDIX P: Standard Operating Procedure: Trailhead Register Maintenance

New York State Department of Environmental Conservation
Division of Forest Protection and Fire Management, Region 5
Route 86 – P. O. Box 296, Ray Brook, NY 12977
Phone: Phone (518) 897-1300 • Emergency: (518) 891-0235 • FAX: (518) 897-1370
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

S O P

TRAILHEAD REGISTER MAINTENANCE

for Division of Forest Rangers and Division of Lands and Forests
Region 5

Objective:

The following Standard Operating Procedures (SOP) is to provide a better system for collecting accurate state land user information. This information is imperative to; search and rescue activities, UMP planning, and state land user trends and also allows Forest Rangers to plan daily/seasonal activities. The procedures listed below are in place for guiding the activities of Forest Rangers and Foresters, in order to meet our objective. Please contact your chain of command when working outside of these parameters.

Guidelines:

Trailhead registers and kiosk information are the responsibility of the Forest Ranger and Lands and Forests Staff.

The Forest Ranger's duties will be to:

A. Maintain current/blank register sheets for users.
B. Maintain a working writing instrument (pencil) at the register.
C. Report any mechanical or aesthetic problems with the register or trail head kiosk to the Lands and Forests Staff utilizing an operations work request and copying appropriate Operations Staff.
D. Work in concert with Lands & Forests Staff to ensure that information at the trailhead is current and accurate.
E. Check trailhead registers and information kiosks on a frequent basis.
F. Sign trail registers, in user information fields, whenever an inspection of the register or an interior patrol is conducted, unless signing would jeopardize an enforcement action.

Trail register sheets will:

A. Be collected by the Forest Ranger who has the administrative responsibilities for such trailhead.
B. Be labeled by the Forest Ranger to show the trailhead at which they originated and the year
C. Be sent (original, photocopy, or statistically*) on a quarterly basis, to the appropriate Forester for the UMP to which the trail head belongs.
D. Be maintained by the Forestry Staff in such a manner that:
    1. Sheets are grouped by trailhead.
    2. Pages are consecutive (chronological order)
    3. Files can easily be accessed by Forest Ranger Staff at any time (day or night).
E. Be kept on record for 7 years.

*Completion of user information tallies are optional for the Forest Ranger. If tallies are kept Rangers will utilize an Excel Spreadsheet for data storage and send an electronic copy to the appropriate Forester on a quarterly basis.

Lands and Forests Staff will:

A. Send UMP user information back to Forest Rangers on a quarterly or yearly basis, depending on trail usage.

Conclusion:

Trail head registers and kiosks are often the only interaction that state land users have with our department. For this reason it is imperative that we maintain these structures and show a routine presence in the register pages.

APPENDIX Q: Public Participation Plan for Vanderwhacker Mountain Wild Forest UMP

- Introduction

Effective public participation/involvement is important to development of unit management plans. The exchange of information and perspectives between DEC staff and the public increases the understanding of resource management, unit management issues and concerns, and improves decision making. Through public participation, the DEC provides opportunities for citizens to participate in the planning and decision-making process critical to the development of management plans for the use of public land units in the Forest Preserve. Timely, effective implementation of Public Participation activities help gather informed public input, provide opportunities for public involvement in decisions made during the planning process, and facilitate completion of effective unit management plans. A number of formal and informal activities are undertaken to inform the public and more importantly allow them opportunities to provide input on the development of the unit management plan. These include press releases, letters to interested parties, postings on the DEC web site and open houses.

- **Initial Press Release**

The initial press release serves as an introductory measure to inform the public that the Unit Management Planning process has begun and that their input is being sought. The press release also serves as a tool to inform the public of general facts and characteristics about the forest preserve and the specific unit. The press release also provides a brief description of Governor Pataki's 1999 Unit Management Plan Initiative, the components of the unit management planning process, the requirements and guidelines required by the Adirondack Park State Land Master Plan; and the role of the Adirondack Park Agency.

The press release identifies the unit management plan team leader and includes information for providing public comment to the DEC, such as a mailing address, a telephone number and an e-mail address. The date, time, location and brief description of a public open house is also provided.

The initial press release for the Vanderwhacker Mountain Wild Forest was sent out on August 2, 2001 to newspapers, radio stations and television stations in the Adirondack region and periphery. A copy of the press release can be found in this Appendix.

- **Interested Party Letter**

The interested party letter provides the same notification and information as the press release. The difference being that the interested party letter is sent to specific interested parties.

Interested parties are those individuals and groups that have previously indicated an interest in the management plan for a specific unit, or parties identified by the planner as being potentially affected by the plan.

Interest that may be affected by a plan may include local governments; businesses, such as camps, campgrounds, lodging facilities, guides and outfitters; recreational groups such as hikers, campers, climbers, hunters, anglers, trappers, boaters, and recreational vehicles users; adjacent landowners and local residents. The letter seeks out their input and informs them of the various means for providing comments to the DEC such as by letter, phone call, telefax, meeting, or email.

Interested party letters regarding the Vanderwhacker Mountain Wild Forest were sent to approximately 50 individuals or groups on July 20, 2000. A copy of the interested party letter can be found in this Appendix.

- **UMP Web Page**

The DEC has established a UMP web page that serves as a clearinghouse of information regarding the unit management planning process and individual unit management plans. The UMP web page's purpose is to keep the public up to date on specific developments relevant to each individual UMP. The web page also serves to reach the increasing number of people that depend on the internet for their information needs and as an additional way for the public to provide comment.

The essential elements within an individual UMP web page include a descriptive paragraph of the area, a map of the unit, a letter to interested parties, an open house notice, a summary of public comments, a draft UMP, and the final UMP. If a fact sheet is developed for the unit it is also included on the web page.

The UMP Web Page, www.dec.state.ny.us/website/dlf/publands/ump/index.html contains a link to the Vanderwhacker Mountain Wild Forest web pages.

- **Open House**

An Open House is organized to provide the public with information on the unit management plan process and to facilitate the gathering of public comments. The open house is divided into four components. The informal discussion period, the DEC's presentation, formal oral comment period and another informal discussion period.

The informal discussion period provides an opportunity for members of the public to meet with the DEC staff serving as team members for a unit. During this period the public may gather information on the unit and the unit management process by speaking with DEC and APA staff , observing displayed materials or browsing through brochures, fact sheets, maps and other literature. The public may also take the opportunity to provide team members with information, ideas, or concerns they may have regarding the unit or the unit management process. Team members will note these comments and provide them to the team leader at the end of the open house.

DEC's presentation provides the public with information on the unit management planning process; the guidelines for developing a unit management plan such as Article XIV of the State Constitution, the Adirondack Park State Land Master Plan, as well as other applicable state laws, regulations and policies; and geographical, natural, recreational and historical facts about the unit.

Formal oral comments are then taken from those attendees who wish to participate. Speakers are allowed three minutes to provide information, express ideas, and share concerns they may have regarding the unit or the unit management planning process. The main points of the speakers comments are written down by DEC staff, or are tape recorded and later reviewed to determine the main points. Speakers are asked to review the what was written to ensure that their comments are properly represented. Speakers are also assured that additional comments may be provided by letter, phone call, telefax, meeting, or email.

The second informal discussion period allows those attendees who prefer not to speak publicly to share their thoughts with team members, and allows those who spoke to expand on or clarify their comments. As with the first informal discussion period, team members will note these comments and provide them to the team leader at the end of the open house.

The open house for the Vanderwhacker Mountain Wild Forest was held at the Newcomb Fire Hall from 7 pm to 10 pm on August 10, 2000. The Open House was attended by approximately 75 citizens of whom 25 submitted formal comments. Some of the issues that were discussed involved: new trail connections in the vicinity of Lake Harris Campground, Camp Santanoni, and the Visitor Interpretive Center in Newcomb, improved hiking access to the Moxham Range, a snowmobile trail connection between Minerva and Newcomb, and a snowmobile connection between Pottersville and the hamlet of Schroon Lake.

- **Informal Discussions**

Interested parties often meet with or telephone DEC to discuss management of a unit and provide information, concerns and ideas. Most often these informal discussions are held with the team leader, but any team member may be contacted. The comments made are summarized, noted and evaluated.

The team leader and team members assigned to the Vanderwhacker Mountain Wild Forest had numerous contacts with individuals and groups regarding the management of the area. The comments provided were noted and summarized with other comments provided by the public as described below.

- **Small Group Meetings**

Occasionally it is deemed appropriate to assemble a group of individuals representing the various interests that may be affected by the unit management plan. While these small groups may be labeled Focus Groups, Discussion Groups, or Advisory Committees, the basic function of these groups are to discuss concerns and management options, and provide the DEC with information and suggestions to assist in selecting management options. DEC will form such groups when it is determined that group input or interaction would be helpful in addressing management options for particular controversial issues.

It was determined that the formation of a specific group was not necessary for the Vanderwhacker Mountain Wild Forest, however the team leader met with many other groups during the development of this UMP to discuss concerns and management options. Those groups included the Forest Preserve Advisory Committee, local snowmobile clubs, various advocacy organizations.

- **Public Comments**

All comments from the public - however and whenever they are obtained - are noted, reviewed, summarized and evaluated as the unit management plan is developed. A response to public comments is developed as part of the planning process.

A summary of the public comments regarding the Vanderwhacker Mountain Wild Forest can be found in Section III and Appendix A of the UMP.

For Release: IMMEDIATE
Wednesday, August 2, 2000

Contact: Cali Brooks
(518) 897-1248

DEC TO PREPARE MANAGEMENT PLAN AND HOLD PUBLIC MEETING ON VANDERWACKER WILD FOREST

New York State Department of Environmental Conservation (DEC) Region 5 Director Stuart A. Buchanan, today announced the beginning of management planning for the 95,500 acre Vanderwacker Wild Forest. Vanderwacker lies within the boundaries of the towns of Minerva, Newcomb, North Hudson, and Schroon Lake in Essex County, Chester and Johnsburg in Warren County, and has one little piece in Indian Lake in Hamilton County. "Preparation of the Unit Management Plan (UMP) for this popular piece of Adirondack Forest Preserve, furthers our strategic plan to complete UMP's for all Forest Preserve Lands in the Adirondacks and Catskills within 5 years," Buchanan said.

A public scoping session on future management of the Vanderwacker unit will be held on August 10th from 7-10 PM at the Newcomb Fire Hall in the Town of Newcomb located on Route 28N in downtown Newcomb.

"Public involvement in development of UMP's is essential and interested parties can provide us valuable input right from the start. Public scoping sessions are an important opportunity for the public to be involved directly with DEC staff on management of the Forest Preserve," Buchanan said. "Persons who know the Vanderwacker Wild Forest area are encouraged to contact DEC at any time with information they feel could be useful in the formation of the UMP. People don't need to wait until a public meeting is scheduled to talk to us about our planning efforts on this area."

The Vanderwacker Wild Forest unit is bounded on the north by the High Peaks Wilderness Area and Dix Mountain Wilderness, to the east and the south are the Hoffman Notch Wilderness, Hammond Pond Wildforest and Lake George Wild Forest, to the south and west include Wilcox Lake Wild Forest, Siamese Ponds Wilderness and Hudson Gorge Primitive Area.

The Vanderwacker Wild Forest offers many recreational opportunities, including hiking, skiing, mountain biking, canoeing, hunting, fishing, horseback riding and snowmobiling. Within the unit exists the proposed 32 acre Santanoni Historic Area.

A UMP must be completed before significant new recreational facilities, such as trails, camping sites, parking areas and boat launches can be constructed. The plans involve an extensive analysis of the natural features of an area and the ability of the land to accommodate public use.

The DEC has primary responsibility for developing management plans for the State owned lands in each Forest Preserve Unit as identified under the Adirondack Park State Land Master Plan (SLMP). This SLMP guides the Adirondack Park Agency (APA) in developing classifications for forest preserve lands in the Adirondack Park as Wild Forest, Primitive, Canoe or Wilderness. These classifications define the range of uses allowed within each classification, with Wild Forest allowing for the widest range of uses including some motor vehicle use and Wilderness allowing for just non-motorized use by the public. The SLMP places further management guidelines on the allowable uses and these guidelines define the basis for developing management plans for each forest preserve unit.

In the Adirondacks, UMPs are developed by DEC staff in consultation with APA staff. Draft plans are widely distributed for public comment and review prior to being finalized by DEC. The plans must then be reviewed by the APA, which is responsible for ensuring that the plans are consistent with

the SLMP. The plan is designed to cover all environmental considerations for the unit and form the basis for all management activities within the unit. Typically the planning process takes about two years with a public meeting scheduled when the draft UMP is published.

A team of DEC staff from the divisions of Fish & Wildlife, Lands and Forests, Operations and Public Protection together with the Adirondack Park Agency will be responsible for developing the first draft of the plan.

The first phase of UMP preparation includes: developing a detailed map of the unit; inventory of resources (flora & fauna); mapping existing facilities and structures; and general recommendations for public use and future plans.

Any interested individual or organization wanting to be included on a mailing list, wishing to provide input or make recommendations is encouraged to do so before September 1, 2000. Please contact Mr. Mike Curley, NYS Department of Environmental Conservation, 232 Hudson St. PO Box 220, Warrensburg, NY 12885 or by telephone at (518) 623-1200.

###

New York State Department of Environmental Conservation
Division of Lands and Forests, Region 5
232 Hudson Street – P. O. Box 220, Warrensburg, New York 12885-0220
Phone: (518) 623-1265 • **FAX:** (518) 623-3603
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

July 20, 2000

Dear Concerned Citizen:

The New York State Department of Environmental Conservation (DEC) has initiated management planning for the 95,500 acre Vanderwhacker Wild Forest. Vanderwhacker lies within the boundaries of the towns of Minerva, Newcomb, North Hudson, and Schroon Lake in Essex County, Chester and Johnsburg in Warren County, and has one little piece in Indian Lake in Hamilton County. The preparation of this Unit Management Plan (UMP) furthers Governor George Pataki's strategic plan to complete UMP's for all Forest Preserve lands within 5 years.

A UMP must be complete before significant new recreational facilities, such as trails, camping sites, parking areas, or boat launches can be constructed. The plans involved an extensive analysis of the natural features of the area and the ability of the land to accommodate public use. The UMP will be developed with public input by DEC in consultation with the Adirondack Park Agency (APA). A team of DEC staff from the Division of Fish & Wildlife, Lands & Forests, Operations and Public Protection will be responsible for developing the first draft of the plan.

Your involvement in the development of this plan is important and essential. You can write to the DEC's Warrensburg office at the above address with any issues or suggested needs for consideration in the plan. Written comments will be accepted through August 25th, 2000.

As part of the unit management planning process a public scoping session for the Vanderwhacker Wild Forest has been scheduled for Thursday, August 10, 2000 from 7 to 10 p.m. at the Newcomb Fire Hall. Your participation in this session is important and essential to the development of a comprehensive Unit Management Plan (UMP) for this area. The Newcomb Fire Hall is located on Route 28N in downtown Newcomb next to the Town Hall.

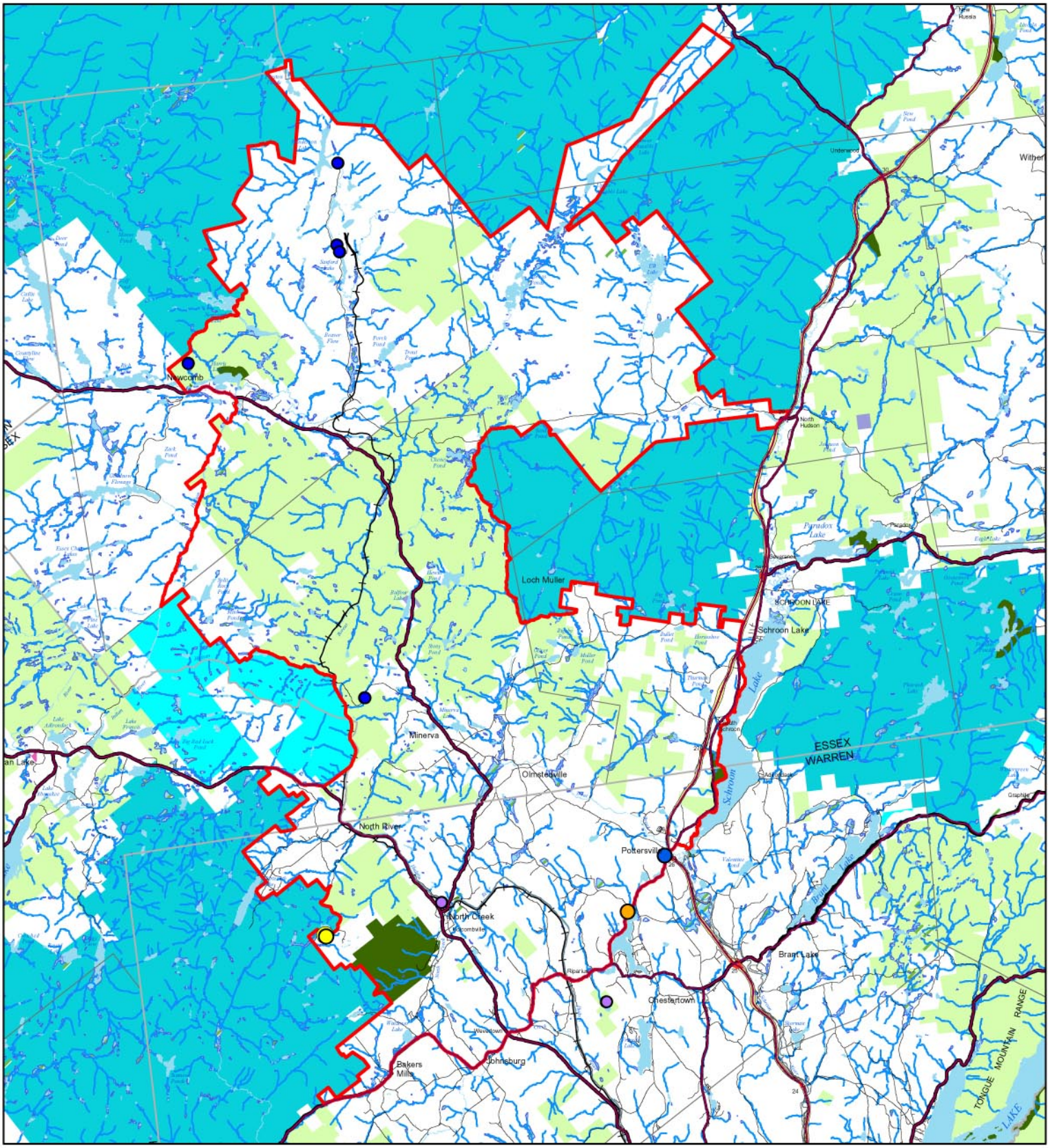
The meeting will open with a brief introduction to the unit management planning process followed by the introduction of DEC staff involved and an overview of the Vanderwhacker Wild Forest Area. The reminder of the meeting will be devoted to public comments and suggestions concerning the future development and management of this area. Please come prepared to share any knowledge or experience you may have in the Vanderwhacker area. All comments will be welcomed with the understanding that the Adirondack Park State Land Master Plan (APSLMP) defines the range of uses allowed within the Wild Forest classification.

I look forward to seeing you there.

Sincerely,

Mike Curley, Forester

APPENDIX R: Invasive Plants



Vanderwhacker Mtn. WF UMP

Positive Invasive Data
Essex County

The Nature Conservancy
Adirondacks
Saving the last great places on earth

Adirondack Land Trust

Map prepared by
ANC/ALT GIS
2004
Keene Valley, New York
Copyright 2004 (c). The Nature Conservancy

Vanderwhacker Mtn. WF UMP Boundary

Terrestrial Invasive Plants

- Lythrum salicaria = Purple loosestrife
- Phragmites australis = Common reed
- Polygonum cuspidatum = Japanese knotweed
- Iris Pseudacorus - Yellow Iris

0 0.5 1 2 3 4 Miles

1:300,000

Terrestrial Actions

The **High Priority** terrestrial infestations occurring within the VMWF have been assessed by APIPP. A brief site description and suggested BMPs are as follows.

1. Multiple Japanese knotweed infestations exist along North Woods Club Road west of State Route 28N. Forest Preserve buffers both sides of the road ROW. The infestations are interspersed along the ROW for approximately 275 feet. Infestations are spreading beyond ROW and into Forest Preserve. Immature stems less than two inch diameter comprise much of the stand densities, indicating significant rhizomatous activity in the adjacent, unconsolidated soils of the ROW fringe. Given the adjacent sensitive setting of Forest Preserve and Bullhead Brook, the immediate control focus should be that of eradication.

Suggested BMPs for this High Priority site:

- Digging/pulling of Japanese knotweed is appropriate for very small populations. This control method is not feasible for these established, interspersed infestations.

- Due to the linear volume of the multiple infestations, repeated cuttings, minimum of 3 times a year, of these Japanese knotweed stands would need to take place in order to provide containment control.

- This control method must be carried out for several years to obtain success. Both mechanical and herbicidal control methods require continued treatment to prevent reestablishment of knotweed.

- All cut plant material needs to be securely bagged and carefully removed from the site. Knotweed plant propagules as small as 13 cm can re-sprout into individual stems if left on the ground. Cutting of individual stems needs to be done by hand. Mechanical cutting, such as weed whip or blade whip is not recommended for multiple infestations.

- Due to the sheer volume of the Japanese knotweed plant material, DEC should anticipate securing access to a secure staging site prior to disposal. Stage the bagged plant material at a monitored site such as a NYS DOT Residency or DEC facility and dispose of in approved landfill or incinerate with appropriate permits.

- Cut stem treatment and/or stem injections may prove to be the best control method for the North Woods Club Road infestations. In late June cut the individual stems below the 2nd node above the soil level. Immediately swab or saturate the freshly-cut cross section with glyphosate or triclopyr. If stem injection is used, the stems do not need to be cut. After 3 weeks inspect the infestations for any re-growth. Repeat cut stem treatment as necessary on any re-growths.

- Clean all clothing, boots and equipment to prevent spread of seed and plant parts.

2. A dense, yet confined, Japanese knotweed infestation is located near the Sears camp at DEC Camp Santanoni. Confer with Clive Friend, Santanoni Caretaker, for exact location and condition of this infestation. Plants are deeply rooted in consolidated soils around the structure.

Digging and pulling as a control method are not feasible at this particular infestation. Adirondack Nature Conservancy (ANC) staff and volunteers from Hamilton College cut the infestation down to soil level during the 2004 field season. All plant parts were securely bagged, removed from the site and disposed of by ANC staff. Given the structural, isolated nature of this infestation, the immediate control focus should be that of containment as to prevent the spread of the infestation to other areas of Camp Santanoni property. Once contained and stand density is reduced, the control focus should be that of eradication.

Suggested BMPs for this High Priority site:

- Because of the confined geophysical setting, and moderately shady site conditions, repeated cuttings may prove effective at this particular infestation. Persistent stems may be re-treated via cut stem treatment utilizing a swab or spot saturation of glyphosate or triclopyr.

- Cut all stems down to soil level in mid June, mid July and late August. Stems may need repeated manual cutting in late September. Securely bag all cut plant parts in black, heavy ml, contractor trash bags. Allow the gleaned plant material to liquefy in the bags and dispose of at approved landfill. The secure setting of the Santanoni property allows for monitored, on-site staging of gleaned plant material prior to disposal.
- Clean all clothing, boots and equipment to prevent the spread of seed and plant parts.

Information Needs

Additional research and collaboration with conservation partners such as NY Natural Heritage Program, Invasive Plant Atlas of New England (IPANE), APA and the Adirondack Nature Conservancy should occur prior to implementing best management practices for the *Iris pseudacorus* infestations adjacent to the VMWF.

All management recommendations are based on knowledge of nonnative invasive species present in a unit and their location, species, abundance and density. A complete inventory of the unit is necessary to identify aquatic and terrestrial invasive plant threats facing the unit. Inventory should be based on existing inventories, formal or informal inventories during routine operations, and by soliciting help from volunteers to actively study the unit and report on invasive species presence, location, and condition.

Protocols to minimize the introduction and transfer of invasive plant species should be incorporated during routine operations and historic and emergency maintenance activities, which may include the following:

Construction Projects

- Supplemental to the principals of the Minimum Tools Approach, all soils/straw/seed or sources of materials to be used as stabilization/cover for construction projects within the UMP should be certified as weed-free.

Campground Maintenance

- Campgrounds should be inventoried for invasive plant establishment on a yearly basis.
- Staging areas of spring clean-up debris and soils within the Campground should be closely monitored for invasive plant establishment.
- Campgrounds already infested with priority invasive plant species should incorporate ED/RR protocols into that respective Campground's yearly plan of work. (Example: DEC's Lake Eaton, Eighth Lake, Golden Beach and Limekiln Lake Public Campgrounds are all documented having multiple Garlic mustard infestations at each facility.)
- Sanitization protocols for clothing, boots, tools and equipment utilized at Campgrounds should be established.

Trail Maintenance

- Supplemental to the principals of the Minimum Tools Approach, all soils/straw/seed or sources of materials to be used as stabilization/cover for construction projects within the UMP should be certified as weed-free.

Field Sampling

- Personnel performing field sampling should avoid transferring aquatic invasive species between waters by thoroughly inspecting and cleaning equipment between routine operations. Potential pathways include: vehicles, boats, motors, and trailers; sampling equipment; measuring and weighting devices; monitoring equipment; and miscellaneous accessories.

Angling Tournaments / Derbies

- Licensing, registration, and/or permitting information distributed by DEC to Tournament or Derby applicants should include guidelines to prevent the introduction and transport of invasive species.

Restoration of sites where invasive plant management occurs is critical to maintain or enhance historical ecological function and structure. Restoration should incorporate best available science to determine effective techniques and the use of appropriate native or non-invasive plant species for site restoration.

Educating natural resource managers, elected officials, and the public is essential to increase awareness about the threat of invasive species and ways to prevent their introduction and transport. Invasive species education should be incorporated in staff training and citizen licensing programs for hunting, fishing, and boating; through signage, brochures, and identification materials; and included in information centers, campgrounds, community workshops, and press releases.

BEST MANAGEMENT PRACTICES FOR STATE LANDS UNDER MANAGEMENT OF THE DEC IN THE ADIRONDACK PARK

Applicability

These Best Management Practices (BMP's) are intended for use by those applying for and implementing terrestrial invasive plant species management activities on State Lands under an Adopt-a-Natural-Resource Stewardship Agreement (ANRSA). The following document contains acceptable practices for control of the following four terrestrial invasive species: Purple loosestrife *(Lythrum salicaria)*, Japanese knotweed *(Polygonum cuspidatum)*, Common reed *(Phragmites australis)*, Garlic mustard *(Alliaria petiolata)*.

The following management options, should be selected with consideration for the location and size of the stands, the age of the plants, past methods used at the site, time of year, sensitive native flora within or adjacent to the target infestation, and adjoining and nearby land uses.

Other management approaches not identified here may be appropriate but must be approved by the Regional Land Manager of the NYS Department of Environmental Conservation in the region where the proposed invasive plant control activity will take place in consultation with the Adirondack Park Agency's Director of Planning.

Within the Park there are several geographic settings (at the location of the target plant(s)) that need to be considered when determining appropriate BMP's and the regulatory instruments needed prior to their implementation. These settings and relevant action are:

1. In or within 100' of a wetland on private or public lands -- requires a general permit from the Adirondack Park Agency.
2. Forest Preserve lands -- requires an ANRSA from the Department of Environmental Conservation and, if wetlands are involved, an Adirondack Park Agency permit.
3. If the standing water is greater then one acre in size and/or has an outlet to surface waters, an aquatic pesticides permit is required pursuant to ECL 15-0313(4) and 6 NYCRR 327.1 in which case application can only be made by a Certified Applicator or Technician or supervised Apprentice licensed in "Category 5 - Aquatic Vegetation Control".

GENERAL PRACTICES

1. **Minimum Tools Approach** - State land stewardship involving invasive plant species management practices should always incorporate the principles of the Minimum Tools Approach. Any group or individual implementing such practices on State land should only use the minimum tools, equipment, devices, force, actions or practices that will effectively reach the desired management goals. Implicit in this document is the stricture to implement a hierarchy of management practices based upon the target species and site conditions starting with the least intrusive and disruptive methods.

2. **Notification -** The following best management practices are intended to be used only when invasive terrestrial plant species are identified on Forest Preserve lands. These management techniques are temporary activities and are implemented with the ultimate goal being protection and restoration of native plant communities. Appropriate signage should be employed to explain the project. It may also be appropriate to issue press releases to explain the goals and techniques of the management activities.

3. **Motorized Equipment** - All use of motorized equipment on State lands under the jurisdiction of the DEC within the Adirondack Park shall be in compliance with Commissioner's Policy Number 17 (CP-17), and other pertinent DEC policy regarding the use of motorized equipment on Forest Preserve Lands.

4. **Erosion Control** - Some of the methods described below require actual digging or pulling of plants from the soil. In all cases they require removal of vegetation whether or not there is actual soil disturbance. Each situation must be studied to determine if the proposed control method and extent of the action will destabilize soils to the point where erosion is threatened. Generally if more than 25 square feet of soil surface is cleared or plant removal occurs on steep slopes silt fence should be installed and maintained.

5. **Revegetation** - All of the control methods below are aimed at reducing or eliminating invasive species so that natives are encouraged to grow and re-establish stable conditions that are not conducive to invasive colonization. In most cases removal or reduction of invasive populations will be enough to release native species and re-establish their dominance on a site. However, replanting or reseeding with native species may be required.

6. **Herbicide Treatments** - The only herbicide application allowed is spot treatment to individual plants using a back pack or hand sprayer, wick applicator, cloth glove applicator, stem injection or herbicide clippers. **No broadcast herbicide applications using, for example a truck mounted sprayer, are allowed.** The only herbicides contemplated and approved for use are glyphosate and triclopyr. Glyphosate, in the correct formulation, may be used in situations where there is standing water including wetlands. Trichlopyr is to be used only in upland situations. **In all cases all label restrictions must and shall be followed by a certified applicator in an appropriate category.** The certified applicator or technician must have copies of the appropriate labels at the treatment site. Glyphosate and triclopyr are non-selective herbicides that are applied to plant foliage or cut stems and are then translocated to the roots. The application methods described and allowed are designed to reduce or eliminate the possibility that non-target species will be impacted by the herbicide use. All herbicide spot treatments require follow-up inspection later in the growing season or the following year to re-treat any individuals that were missed. Stem injections may be implemented using a large gauge needle or a specialized injection tool such as the JK Injection System (www.jkinjectiontools.com).

All herbicide mixing will be done in accordance with the label precautions and take place at a staging area (typically at a marshalling yard or a vehicle). No mixing shall take place on State lands unless at an approved location constructed for such use. Unused chemical and mixes shall be disposed of in a legal manner. No chemical or mix shall be disposed of on State lands unless at an approved location constructed for such use.

7. **Sanitation** - Management personnel must attempt to prevent invasive plant propagules from entering a treatment site or from being exported from it. Therefore, personnel must insure that their clothing including boots do not carry seeds or other propagules or weed seed infected soil clods. At the beginning of the field day personnel should inspect their clothing and boots at the staging area. Prior to leaving the treatment site personnel should conduct another inspection and remove any propagules or soil clods from their clothing or boots. Personnel must insure that all equipment used for invasive species control whether it be hand or power driven is cleaned prior to entering onto a control site and prior to leaving the treatment

site. Vehicles and equipment can be cleaned at a staging area that is distant from the control site after management activities if precautions are taken during transport to contain any propagules. This is an effort to reduce transport of plant propagules and reduce the potential for new invasive introductions. Use steam or hot water to clean equipment.

8. **Material Collection and Transportation** - While on the treatment site bag all cut material in heavy duty, 3 mil or thicker, black contractor quality plastic clean-up bags. Securely tie the bags and transport from the site in a truck with a topper or cap to securely fasten the load, in order to prevent spread of the plant material from the project work site. Transport the material to a legal disposal location.

9. **Composting** - Because of the extremely robust nature of invasive species, composting in a typical backyard compost pile or composting bin is not appropriate. However, methods can be used whereby sun-generated heat can be used to destroy the harvested plant materials. For instance, storage in a sealed 3 mil thickness (minimum) black plastic garbage bags on blacktop in the sun until the plant materials liquefy is effective. If a larger section of blacktop is available, make a black plastic (4 mil thickness minimum) envelope sealed on the edges with sand bags. The plant material left exposed to the sun will liquefy in the sealed envelope without danger of dispersal by wind. The bags or envelopes must be monitored to make sure the plants do not escape through rips, tears or seams in the plastic. **When composting is suggested later in the text it is understood that liquefying the plant material in or under plastic is the desired action; not disposal in backyard composters or open landfill composting piles.**

CONTROL METHODS FOR PURPLE LOOSESTRIFE (Lythrum salicaria)

PLANT DESCRIPTION

Purple loosestrife is a wetland perennial native to Eurasia that forms large, monotypic stands throughout the temperate regions of the U.S. and Canada. It has a vigorous rootstock that serves as a storage organ, providing resources for growth in spring and regrowth if the plant has been damaged from cuttings. New stems emerge from the perennial roots enabling the plant to establish dense stands within a few years. Seedling densities can approach 10,000-20,000 plants/m5 with growth rates exceeding 1 cm/day. A single, mature plant can produce more than 2.5 million seeds annually which can remain viable after 20 months of submergence in water. In addition, plant fragments produced by animals and mechanical clipping can contribute to the spread of purple loosestrife through rivers and lakes.

MANAGEMENT OPTIONS

1. Digging/pulling

Effectiveness:

Can be effective in small stands i.e.:<100 plants, low-med density(1-75% area), & <3 acres, especially on younger plants in unconsolidated soils.

Methods:

Hand-pull plants <2 years old. Use mini-tiller for plants>2 years - gets most of roots w/minimum soil disturbance, has 3 heavy duty prongs on 1 side that are pushed under base of plant, then pry back on handle to leverage plant out of ground. Use weed wrench for plants > 2 years old - good w/minimal soil disturbance. In mucky conditions, put base of wrench on small piece of wood (e.g.: piece of 2x4) to keep wrench from sinking into mud. Use shovel for plants > 2 years old - dig up plant, tamp down disturbed area and/or then replace soil and any existing cover.

Cautions:

May increase habitat disturbance & increase spread of loosestrife. Requires follow-up treatments of sites for 3 years to eliminate re-sprouting from fragments left behind. Must pull/dig ENTIRE rootstock or resprouting will likely occur. Must pull/dig before the plants begin setting seed or must remove flower/seed heads first (cut into bags) to prevent spread of seeds. Also remove previous year=s dry seed heads. Erosion control may be necessary.

Disposal:

Bag all plant parts & remove from site (compost at DOT Residency, dispose of in approved landfill or incinerate with appropriate permits)..

Sanitation:

Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

2. Cutting

Effectiveness:

Can be effective in small stands i.e.<100 plants, low-med density (1-75% area), & <3 acres, especially on younger plants.

Methods:
Remove flower heads before they go to seed, so seed isn't spread when cutting or mowing. Must do repeated cutting & mulching to permit growth of grasses.

Cautions:
Need to repeat for several years to reduce spread of plants. Doesn't affect rootstalk & thus, cut pieces can be spread that will resprout. Once severed, stems are buoyant and may disperse to other areas and re-sprout. Removal of seed heads should be done as late in the growing season as possible yet before seed set. Early cutting without additional seed head harvest could allow resprouting with greater subsequent seed production.

Disposal:
Bag all plant parts & remove from site (compost at DOT Residency, dispose of in approved landfill or incinerate with appropriate permits).

Sanitation:
Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

3. Herbicide
Effectiveness:
Use when>100 plants & <3-4 acres in size.

Methods:
Use glyphosate formulations only. If possible treat seedlings before they reach 12" in height. Cut and bag flower heads before applying herbicide. Apply prior to or when in flower (late July/Aug) so plants are actively growing.
For spot application use:
- sponge tip applicator w/wick.
- stem injection

Cautions:
This herbicide is not selective (kills both monocots & dicots), thus should be applied carefully to prevent killing of non-target species. All tank mixes should be mixed with clean (ideally distilled) water because glyphosate binds tightly to sediments, which reduces toxicity to plants.
Do not apply in windy conditions because spray will drift and kill other plants. Do not apply if rain is forecast within 12 hours because herbicide will be washed away before it can act. Choose Glyphosate formulation for applications in standing water or along a shoreline.

4. Biocontrol
Two species of leaf-feeding beetle, *Galerucella calmariensis* and *G. pusilla*, have been shown to be effective in controlling purple loosestrife. Over 5 million of these beetles have been released in 30 states including New York, the northeastern and midwestern states as well as all of the Canadian Provinces. The beetles have shown dramatic decreases in purple loosestrife populations with subsequent increases in populations of native species. The scientific literature indicates that the beetles are very specific to purple loosestrife with only minor effects that do not compromise non-target plant populations.

Effectiveness:
Use if site has at least a half acre of purple loosestrife of medium to thick density.
Best type of control for large patches of loosestrife>3-4 acres.

Methods:
The number of beetles released per site should be based on the size of the site, the density of loosestrife and the economics of purchase. More beetles are generally better than fewer.

Cautions:
Use only if mowing, pesticide and herbicide use are not active practices on the site.
The site must not be permanently flooded and should be sunny. Use only if winged loosestrife, *(Lythrum alatum)* and waterwillow *(Decodon verticillatus)* are not major components of the plant community on the release site. **Please note that identification of winged loosestrife and waterwillow should be done by a professional botanist prior to treatment to determine if this biocontrol method is appropriate.**

CONTROL METHODS FOR COMMON REED (Phragmites australis)

PLANT DESCRIPTION

Phragmites is a perennial grass that can grow to 14 feet in height. Flowering and seed set occur between July and September, resulting in a large feathery inflorescence, purple-hued turning to tan. Phragmites is capable of vigorous vegetative reproduction and often forms dense, virtually monospecific stands. It is unclear what proportion of the many seeds that Phragmites produces are viable. **Please note that identification of phragmites should be done by a professional botanist prior to treatment to distinguish the invasive non-native race from the non-invasive native.**

MANAGEMENT OPTIONS

1. Cutting and Pulling

Effectiveness:

Need to repeat annually for several years to reduce spread of plants. Hand-pulling, though labor intensive, is an effective technique for controlling phragmites in small areas with unconsolidated soils or sediments.

Methods:

The best time to cut phragmites is when most of food reserves are in aerial portion of plant (when close to tassel stage-e.g.: at end of July/early August to decrease plant's vigor. Some patches may be too large to cut by hand, but repeated cutting of the perimeter of a stand can prevent vegetative expansion.
Phragmites stems should be cut below the lowest leaf, leaving a 6" or shorter stump.
Hand-held cutters and gas-powered hedge trimmers work well. Weed whackers with a circular blade were found to be particularly efficient, though dangerous.

Cautions:

If cut before in tassel stage or at wrong time, stand density may increase because Phragmites is a grass. Remove cut shoots to prevent re-sprouting and forming stolons.

Disposal:

Cut or pulled material should be removed from the site and composted, land-filled or incinerated. The harvested biomass can be disposed of onsite if the seed heads are removed and the cut stems are dispersed in an upland area.

Sanitation:

Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

2. Herbicide

Effectiveness:

Herbicide use is a 2 year, 2 step process because the plants may need Atouch-up@ application, especially in dense stands since subdominant plants are protected by thick canopy & may not receive adequate herbicide in the first application.

Methods:

Use glyphosate formulations only. Cut Phragmites at waist-height just before onset of tassel stage. Immediately squeeze/inject 5 mil of 50% solution of glyphosate into each individual, freshly-cut stem.

Secure all cut plant material, remove from site and dispose of at approved landfill or incinerator. 50% solution of glyphosate equates to a one to one mix with distilled water. After 2 to 3 weeks following application of glyphosate, cut or mow down the stalks to stimulate the emergence and growth of other plants previously suppressed. Use spray bottle for individual foliar spot treatments or use swab or syringe w/large gauge needle or Nalgene® Unitary® wash bottle (or equivalent) to apply 1-2 drops directly to cut stems if cutting done first, or cloth glove applicator.

Cautions:
This herbicide is not selective (kills both monocots & dicots), thus should be applied carefully to prevent killing of non-target species. All tank mixes should be mixed with clean (ideally distilled) water because glyphosate binds tightly to sediments, which reduces toxicity to plants.
Do not apply in windy conditions because spray will drift and kill other plants. Do not apply if rain is forecast w/in 12 hours because herbicide will be washed away before it can act. Choose appropriate glyphosate formulation for applications in standing water or along a shoreline.

3. Plastic*
* This is a temporary use of plastic sheeting on Forest Preserve lands and should be used only if other non-herbicide approaches are considered less effective. In any case where plastic sheeting is used on Forest Preserve lands signing should be employed to explain the project should be provided.

Effectiveness:
Tarping can be effective in small stands i.e.:<100 plants, low-med density(1-75%area). Plants die off w/in 3-10 days, depending on sun exposure.

Methods:
Cut plants first to 6-8" (hand clippers or loppers, hand-pushed bush hog or weed whacker w/blade). After cutting a stand of phragmites, anchor a sheet of plastic over the cut area using sand bags or rocks. High temperatures under the plastic will eventually kill off the plants. This technique works best when the treated area is in direct sunlight. Black plastic is desirable, but clear plastic also works. Plastic should be at least 6 millimeters thick. Hold plastic in place with sandbags, rocks, etc.
Can treat runners along edge w/spot application of glyphosate. Cut holes in plastic in Oct.- Nov. to promote germination of cattail shoots. The plastic can be removed the following year when the covered plants have been killed. A few phragmites shoots may return. These can be cut or hand-pulled.

Cautions:
Must monitor to determine if shoots are extending out from under the plastic.

Disposal:
Can leave cut material under plastic or bag all plant parts & remove from site (compost at DOT Residency, dispose of in approved landfill or incinerate with appropriate permits. All plastic sheeting must be removed from State lands.

Sanitation:
Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

4. Cutting
Effectiveness:
Can be effective in small stands i.e.<100 plants, low-med density (1-75%area) & <3 acres.

Methods:
Cut just before the end of July, most of the food reserves produced that season are removed with the aerial portion of the plant reducing the plant's vigor. This regime may eliminate a colony if carried out annually for several years. Can do after herbicides.

Sanitation:
Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

5. Pulling
Effectiveness:
Can be effective in small stands i.e.<100 plants. Very labor intensive. Best with sandy soils.

Methods:
Hand-pull plants<2 years old. Use shovel for plants>2 years old-dig up plant, then replace soil and any existing cover.

Disposal:
Bag all plant parts & remove from site (compost at DOT Residency, dispose of in approved landfill or incinerate with appropriate permits).

Sanitation:
Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

6. Excavation
Effectiveness:
Can be effective for patches up to 2 acre. Cost is the limiting factor.

Methods:
When working in wetlands only tracked equipment shall be used. Rubber-tired excavators can operate from adjacent pavement or upland areas. All use of motorized equipment on State lands under the jurisdiction of the DEC within the Adirondack Park shall be in compliance with Commissioner's Policy Number 17 (CP17), and other pertinent DEC policy regarding the use of motorized equipment on Forest Preserve Lands.

Cautions:
The patch should be excavated to below the depth of rhizome development. Follow-ups later in the season or the following year must be conducted to verify that all the plants have been removed.

Disposal:
Bag all plant parts & remove from site (compost at DOT Residency, dispose of in approved landfill or incinerate with appropriate permits).

Sanitation:
Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

CONTROL METHODS FOR GARLIC MUSTARD (Alliaria petiolata)

PLANT DESCRIPTION

Garlic mustard is a naturalized European biennial herb that typically invades partially shaded forested and roadside areas. It is capable of dominating the ground layer and excluding other herbaceous species. Its seeds germinate in early spring and develops a basal rosette of leaves during the first year. Garlic mustard produces white flowers between late April and June of the following spring. Plants die after producing seeds, which typically mature and disperse in August. Normally its seeds are dormant for 20 months and germinate the second spring after being formed. Seeds remain viable for up to 5 years.

MANAGEMENT OPTIONS

1. Pulling.

Effectiveness:

Hand pulling is an effective method for removing small populations of garlic mustard, since plants pull up easily in most forested habitats. Plants can be pulled during most of the year. However, pulling also disturbs the soil and can increase rates of germination of buried seeds. In most cases cutting is the preferred hand control option.

Methods:

Soil should be tamped down firmly after removing the plant. Soil disturbance can bring garlic mustard seeds to the surface, thus creating a favorable environment for their germination.

Cautions:

Care should be taken to minimize soil disturbance but to remove all root tissues. Re-sprouting is uncommon but may occur from mature plants not entirely removed. Cutting is preferred to pulling due to potential for soil disturbance.

Disposal:

If plants have capsules present, they should be bagged and disposed of to prevent seed dispersal. Bag all plant parts & remove from site (compost at DOT Residency, dispose of in approved landfill or incinerate with appropriate permits).

Sanitation:

Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

2. Cutting

Effectiveness:

Cutting is effective for medium-to large-sized populations depending on available time and labor resources. Dormant seeds in the soil seed bank are unaffected by this technique due to minimal disturbance of the soil.

Methods:

Cut stems when in flower (late spring/early summer) at ground level either manually (with clippers or a scythe) or with a motorized string trimmer. This technique will result in almost total mortality of existing plants and will minimize re-sprouting.

Cautions:
Cuttings should be conducted annually until the seedbank is depleted.

Disposal:
Cut stems should be removed from the site when possible since they may produce viable seed even when cut. Bag all plant parts & remove from site (compost at DOT Residency, dispose in approved landfill or incinerate with appropriate permits).

Sanitation:
Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

3. Herbicide
Effectiveness:
Glyphosate will not affect subsequent seedling emergence of garlic mustard or other plants.

Methods:
Use glyphosate formulations only. Should be applied after seedlings have emerged, but prior to flowering of second-year plants. Application should be by wick applicator or spray bottle for individual spot treatments.

Cautions:
This herbicide is not selective (kills both monocots & dicots), thus should be applied carefully to prevent killing of non-target species. All tank mixes should be mixed with clean (ideally distilled) water because glyphosate binds tightly to sediments, which reduces toxicity to plants.
Do not apply in windy conditions because spray will drift and kill other plants. Do not apply if rain is forecast w/in 12 hours because herbicide will be washed away before it can act. Choose appropriate glyphosate formulation for applications in standing water or along a shoreline.

CONTROL METHODS FOR JAPANESE KNOTWEED (Polygonum cuspidatum)

PLANT DESCRIPTION

Japanese knotweed is an herbaceous perennial which forms dense clumps 1-3 meters (3-10 feet) high. Its broad leaves are somewhat triangular and pointed at the tip. Clusters of tiny greenish-white flowers are borne in upper leaf axils during August and September. The fruit is a small, brown triangular achene. Knotweed reproduces via seed and by vegetative growth through stout, aggressive rhizomes. It spreads rapidly to form dense thickets that can alter natural ecosystems. Japanese knotweed can tolerate a variety of adverse conditions including full shade, high temperatures, high salinity, and drought. It is found near water sources, in low-lying areas, waste places, and utility rights of way. It poses a significant threat to riparian areas, where it can survive severe floods.

MANAGEMENT OPTIONS

1. Digging

Effectiveness:

This method is appropriate for very small populations.

Methods:

Remove the entire plant including all roots and runners using a digging tool. Juvenile plants can be hand-pulled depending on soil conditions and root development.

Cautions:

Care must be taken not to spread rhizome or stem fragments. Any portions of the root system or the plant stem not removed will potentially re-sprout.

Disposal:

All plant parts, including mature fruit, should be bagged and disposed of in the trash to prevent re-establishment (i.e. stockpile at DOT Residency with prior approval, dispose of in an approved landfill or incinerate with appropriate permits).

Sanitation:

Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

2. Cutting

Effectiveness:

Repeated cutting may be effective in eliminating Japanese knotweed. Manual control is labor intensive, but is a good option where populations are small and isolated or in environmentally sensitive areas.

Methods:

Cut the knotweed close to the ground at least 3 times a year. Plant locally prevalent native species as competitors as an alternative to continued treatment.

Cautions:

This strategy must be carried out for several years to obtain success. Both mechanical and herbicidal control methods require continued treatment to prevent reestablishment of knotweed.

Disposal:
Bag all plant parts & remove from site (i.e. stockpile at DOT Residency with prior approval, dispose of in an approved landfill or incinerate with appropriate permits).

Sanitation:
Clean all clothing, boots, & equipment to prevent spread of seed. See #4 under General Practices.

3. Herbicide
Effectiveness:
Glyphosate or trichlopyr treatments in late summer or early fall are much more effective in preventing regrowth of Japanese knotweed the following year.

Methods:
Use glyphosate or trichlopyr formulations only.
Strategy:
1) Late June - Cut down stalks. If stem injection is used stalks do not have to be cut.
2) Allow knotweed to regrow.
3) After August 1, implement foliar spray, cut stem swab or stem injection of knotweed with glyphosate or trichlopyr. Stem injection should be below the 2nd node above the ground level.

Cautions:
Established stands of Japanese knotweed are difficult to eradicate even with repeated herbicide treatments. However, herbicide treatments will greatly weaken the plant and prevent it from dominating a site. Adequate control is usually not possible unless the entire stand of knotweed is treated (otherwise, it will re-invade via creeping rootstocks from untreated areas). Empirical evidence is that trichlopyr is more effective than glyphosate in causing Japanese knotweed mortality.

These herbicides are not selective (kills both monocots & dicots), thus should be applied carefully to prevent killing of non-target species. All tank mixes should be mixed with clean (ideally distilled) water because glyphosate binds tightly to sediments, which reduces toxicity to plants.
Do not apply in windy conditions because spray will drift and kill other plants. Do not apply if rain is forecast w/in 12 hours because herbicide will be washed away before it can act. Choose appropriate glyphosate formulation for applications in standing water or along a shoreline.

GLOSSARY OF TERMS

Abandoned Town Road - road on which Town maintenance has been permanently discontinued. For such roads, ownership of the right-of-way reverts to the surrounding landowners. In contrast, see "Qualified Abandoned Town Road."

Adirondack Brook Trout Ponds - Adirondack Zone ponds which support and are managed for populations of brook trout, sometimes in company with other salmonid fish species. These waters generally lack warmwater fishes but frequently support bullheads.

Adirondack Forest Preserve - consists of land owned by the State within the 12 Adirondack counties. Essentially all of the 2 ½ million acres of State land within the Adirondack Park is Forest Preserve which is protected by Article XIV, Section 1 of the New York State Constitution.

Adirondack Park - consists of six million acres of public and private land within a boundary delineated in the Environmental Conservation Law. At the present time, State ownership accounts for some 40 percent of this area.

Adirondack Park State Land Master Plan-A document prepared by the Adirondack Park Agency in consultation with the Department of Environmental Conservation that is designed to guide the preservation, management, and use of all State lands within the Adirondack Park.

Administrative Barrier - A barrier that can be opened to allow travel over the road by State personnel for administrative or emergency purposes. An administrative barrier should consist of a swing barrier constructed of pipe.

All Terrain Bicycle - A non-motorized bicycle designed or used for cross-country travel on unimproved roads or trails. (APSLMP)

Beaver Ponds - Impoundments created by dam building activities of beaver.

Boat Launching Site - a site providing for the launching of trailered boats, with ramp and attendant parking facilities. (APSLMP. See "Fishing and Waterway Access Site").

Campground - A concentrated, developed camping area with controlled access which is designed to accommodate a significant number of overnight visitors and may incorporate associated day use facilities such as picnicking.

Coldwater Ponds and Lakes - Lakes and ponds which support and are managed for populations of several salmonids. These waters generally lack warmwater fishes but frequently support bullheads.

Controlled Access Barrier - A barrier that can be opened to allow travel over the road by private individuals or organizations who have the legal right of such travel. A controlled access barrier should be of the same design and construction as an administrative barrier.

Cross-Country (Nordic) Ski Trail - A marked and maintained path or way for cross-country ski or snowshoe travel, which has the same dimensions and character and may also serve as a foot trail, designed to provide reasonable access in a manner causing the least effect on the surrounding environment and not constructed, maintained or groomed with the use of motor vehicles. (APSLMP)

Endangered Species - Those species of fish, shellfish, crustacea and wildlife designated by the Department (DEC), by order filed with the Secretary of State, as seriously threatened with extinction (Section 11- 0535 ECL).

Fee Acquisition - The term "fee" applies to the purchase of all rights to property. This differs from purchasing an easement in which only certain rights are purchased.

Fireplace - a permanent structure constructed of stone and cement designed to contain and control camp fires. (APSLMP)

Fire Ring - a temporary cluster of rocks designed to contain and control camp fires which may contain, in fire sensitive areas, a cement slab. (APSLMP)

Fish Barrier Dam - A man-made device or structure used to prevent the upstream or downstream migration of fish for the purpose of protecting a high-value fishery or population of fish indigenous to the protected body of water.

Fishing and Waterway Access Site - A site for fishing or other water access which provides public access and parking for vehicles which does not contain a ramp for or otherwise permit the launching of trailered boats. (APSLMP. See "Boat Launching Site")

Forage Fishes - Small fishes which serve as food for larger, carnivorous fishes; e.g., rainbow smelt represents a traditional forage fish for landlocked salmon.

Foot Trail - A marked and maintained path or way for foot travel.

Lean-to - An open front shelter made of natural materials suitable for temporary or transient residence.

Motor Vehicle - A device for transporting personnel, supplies or material that uses a motor or an engine of any type for propulsion and has wheels, tracks, skids, skis, air cushion or other contrivance for traveling on, or adjacent to air, land and water or through water.

Motorboat - A device for transporting personnel or material that travels over, on or under the water and is propelled by a non-living power source on or within the device.

Multi-Species Waters - Waters which support more than one fish species. The great bulk of Adirondack Zone waters meets this definition.

Native Species Waters - Waters supporting native Adirondack Zone fish species. Example: brook trout, lake trout, round whitefish.

Natural Materials - Construction components drawn from the immediate project site or materials brought into the construction site that conform in size, shape and physical characteristics to those naturally present in the vicinity of the project site. Such materials include stone, logs and sawn and treated timber. Natural materials may be fastened or anchored by use of bolts, nails, spikes or similar means. (APSLMP)

Natural Spawning Adequate (N.S.A.) Waters - Brook trout ponds and numerous small, headwater stream sections with mainly slow-growing or stunted brook trout populations which are self-maintained by natural reproduction. Also includes the great majority of warmwater and non-game fish species.

Non-native Species Waters - Waters supporting introduced, non-native fish species, such as yellow perch and black bass.

Old Military Road - see page 9 for in-depth discussion.

Other Ponds and Lakes - Fishless waters and waters containing fish communities consisting of native and non-native fishes which will be managed for their intrinsic ecological value.

Permanent Barrier - A barrier that will close a road permanently to all future travel -- public or administrative -- on such road. A permanent barrier should consist of an earth, rock, or ditch (or any combination thereof) barricade of substantial proportions so as to be obvious and require little or no maintenance.

pH Value - Represents the effective concentration of hydrogen ion. The practical pH scale extends from 0 (very acid) to 14 (very alkaline). Waters with pH value below 7 are acid while those above this value are alkaline.

Primitive Tent Site - An undeveloped camping site providing space for not more than three tents, which may have an associated pit privy and fire ring, designed to accommodate a maximum of eight people.

Qualified Abandoned Town Road - Roads for which a Town decides to suspend maintenance, but does not relinquish ownership of the right-of-way to the surrounding landowners. According to Section 205 of the Highway Law, the town has the right to resume jurisdiction over such roads for any purpose, and the title to such roads remains with the town. In contrast, see “Abandoned Town Road.”

Reclamation - A management technique involving the application of a fish toxicant such as "rotenone" to eliminate undesirable fish populations.

Road - An improved way designed for travel by motor vehicles and either, (a) maintained by a State agency or a local government and open to the general public; or (b) maintained by private persons or corporations primarily for private use but which may also be partly or completely open to the general public for all or a segment thereof; or (c) maintained by the Department of Environmental Conservation and open to the public on a discretionary basis; or (d) maintained by the Department of Environmental Conservation for its administrative use only.

Small Ponds - Ponds of less than one surface acre which are generally considered too small for management purposes or to provide significant angling opportunities.

Small Streams - Streams less than one mile long and less than 0.5 cfs summer flow. Too small to be considered for management purposes.

Snowmobile - A motor vehicle designed primarily to travel on snow or ice by means of skis, skids, tracks or other devices. It is specifically excluded from the definition of "motor vehicles" in 6 NYCRR and the Vehicle and Traffic Law.

Special Angling Regulations - Departures from the statewide angling regulations. These are currently expressed as options in the fishing guide. May be more liberal or more restrictive than the statewide regulations.

State Environmental Quality Review - Is a process which requires all levels of State and local government to assess the environmental significance of actions which they have discretion to approve, fund or directly undertake.

Trailhead - A point of entrance to State land which may contain some or all of the following: vehicle parking, trail signs, and peripheral visitor registration structures. (APSLMP).

Two-Story Ponds and Lakes - Waters which simultaneously support and are managed for populations of coldwater and warmwater game fishes. The bulk of the lake trout and rainbow trout resource fall within this class of waters.

Unit Management Plan - a document that identifies the natural resources, man-made facilities, public use, and past management within a described geographic unit of State land. The plan covers all aspects of the environment and is the basis for all future activities on State lands for a period of five years.

Unknown Ponds and Lakes - Waters which could not be assigned to the subprogram categories specifically addressed in this document due to a lack of or paucity of survey information. These waters usually contain native and non-native non-game fishes which will be managed for their intrinsic ecological value without any new species introductions.

Warmwater Ponds and Lakes - Waters which support and are managed for populations of warmwater game fishes and lack significant populations of salmonid fishes.