New York State
Department of Environmental Conservation

Blue Ridge Wilderness
and
Wakely Mountain Primitive Area

Unit Management Plan

Towns of Indian Lake, Lake Pleasant, Arietta, and Long Lake
and the Village of Speculator in Hamilton County, New York

September, 2006

GEORGE E. PATAKI
Governor

DENISE M. SHEEHAN
Commissioner

For further information contact:

Supervising Forester Richard Fenton
New York State Department of Environmental Conservation
701 South Main Street, P.O. Box 1316
Northville, NY 12134
(518) 863-4545
rtfenton@gw.dec.state.ny.us

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GEORGE E. PATAKI
GOVERNOR

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

DENISE M. SHEEHAN
COMMISSIONER

MEMORANDUM

SEP 11 2006

TO: The Record

FROM: Denise M. Sheehan

SUBJECT: Blue Ridge Wilderness Area

The Final UMP for the Blue Ridge Wilderness Area Final Unit Management Plan (Final UMP) has been completed. The Final UMP is consistent with the guidelines and criteria of the Adirondack Park State Land Master Plan, the State Constitution, Environmental Conservation Law, and Department rules, regulations and policies. The Final UMP includes management objectives and a five year budget and is hereby approved and adopted.

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RESOLUTION ADOPTED BY
THE ADIRONDACK PARK AGENCY
WITH RESPECT TO BLUE RIDGE WILDERNESS
AND
WAKELY MOUNTAIN PRIMITIVE AREA
UNIT MANAGEMENT PLAN

August 11, 2006

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 Blue Ridge Wilderness and Wakely Mountain Primitive Area dated June, 2006; and

WHEREAS, this action is a Type 1 action for which the Department of Environmental Conservation is the lead agency as provided for by implementing regulations of the State Environmental Quality Review Act, 6 NYCRR Parts 617 and 618; and

WHEREAS, the Department has provided the Agency with a Negative Declaration for the SEQR determination of significance; and

WHEREAS, the Adirondack Park Agency is an involved agency whose staff have been consulted in the preparation of the proposed plan; and

WHEREAS, the Agency is requested to determine whether the final Blue Ridge Wilderness and Wakely Mountain Primitive Area Unit Management Plan, dated June, 2006, 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 Blue Ridge Wilderness and Wakely Mountain Primitive Area Unit Management Plan; and

WHEREAS, the plan explicitly recognizes the primary value of the Blue Ridge Wilderness is the rare opportunity it provides the recreating public to experience a high degree of solitude; and

WHEREAS, the plan proposes future maintenance of an existing vista via brushing and pruning along the trail near the summit of Sawyer Mountain; and

WHEREAS, the plan calls for investigation of a new trail to the open summit of Ledge Mountain in the Blue Mountain Wild Forest and discontinuing maintenance of the Sawyer Mountain trail and vista if a suitable opportunity for an alternate naturally occurring vista can be identified; and

WHEREAS, the approval of this unit management plan is not a specific endorsement by the Agency of vista maintenance either as a general practice in a Wilderness area or as proposed for Sawyer Mountain in this unit management plan; and

WHEREAS, the Department has agreed to revise the text of the Blue Ridge Plan to state that no formal determination has been made by the Adirondack Park Agency regarding State Land Master Plan compliance of the portion of the Department’s trail maintenance policy which allows the maintenance of views in Wilderness areas; and

WHEREAS, the Department and the Agency are committed to the continued discussion and examination of the overall concept of vista management as a general practice in Wilderness or as a proposal for Sawyer Mountain within the guidelines and criteria of the State Land Master Plan; and

WHEREAS, vista maintenance should be evaluated on a case-by-case basis within the context of each unit and within current DEC trail maintenance policy; and

WHEREAS, the Department has identified the Wakely Mountain Fire Tower as a facility that is essential for the communications needs and has proposed an appropriate use within the guidelines and criteria of the State Land Master Plan; and

WHEREAS, the Department has committed to a Park-wide assessment of fire towers which will address the most appropriate future use of individual towers and observers’ cabins for communications, fire

control, education and information use, including specific information on the overnight use of the observers' cabins by volunteer groups; and

WHEREAS, the Park-wide assessment will be completed prior to undertaking any use of the observer’s cabin; and

WHEREAS, the Department will consult with Agency staff if any additional communications equipment will be needed on Wakely Mountain or if the proposed use of the helicopter landing platform is expanded beyond what is specifically described in this unit management plan in order to determine whether a plan amendment is needed; and

WHEREAS, the Department has provided additional information in the plan’s text which clarifies the timing and use of motorized equipment in Bicknell’s Thrush habitat on Wakely Mountain; and

WHEREAS, the Department has committed to scheduling the removal of debris from the Wakely Mountain summit as soon as possible; and

WHEREAS, the plan commits to the implementation of strategies for prevention, targeted containment and/or eradication of invasive plant infestations; and

WHEREAS, the plan proposes management intended to restore and perpetuate indigenous fish species, provide recreational angling as part of a larger wilderness experience, and maintain and perpetuate annual hunting and trapping activities as legitimate uses of the wildlife resources compatible with wilderness recreation; and

WHEREAS, the Department has amended the plan to provide for the collection of additional biological and chemical sampling data from Slim Pond if determined to be necessary as part of the wetlands application process prior to initiating reclamation activities; and

WHEREAS, the plan proposes management to monitor and afford protection to species which are endangered, threatened, or of special concern; and

WHEREAS, the Department has committed to the development of indicators and standards for primitive tent sites in the area, as well as to continued consultation with the Agency regarding design criteria to ensure sites conform to the guidelines and criteria of the Master Plan and to close, restore and relocate tent sites that do not conform with Master Plan guidelines; and

WHEREAS, the Department has amended the plan to emphasize the use of mineral soils rather than concrete slabs for the construction of fire rings at primitive tent sites located in fire-sensitive areas; and

WHEREAS, the plan commits to the adoption of regulations limiting the maximum number of people per tent site to eight people, and limiting day use group sizes to fifteen in conformance with the Master Plan guideline to implement appropriate administrative and regulatory measures to control use within the physical, biological and social carrying capacity of the wilderness resource; and

WHEREAS, the plan calls for the posting of Navigation Law requirements of a 5 mph speed limit from the shoreline which will apply to all motor boats and personal watercraft on the waters of South Inlet; and

WHEREAS, the plan proposes to establish a Historic Great Camps Special Management Area for the Forest Preserve lands in the vicinity of the historic Camp Sagamore and Camp Uncas properties; and

WHEREAS, the purpose of this designation is to recognize the importance of the Great Camps as cultural resources of State and national significance, to coordinate with educational programs offered at Camp Sagamore and to support the long-term preservation of the Great Camps as educational and cultural resources; and

WHEREAS, the Department has amended the plan to list structures at the beginning of the entrance road to Camp Kill Kare but on Forest Preserve lands as non-conforming and in need of a legal determination regarding whether there is an underlying property right for their continuance at the current location; and

WHEREAS, the Department has proposed appropriate facilities to enhance access for the disabled, including improved access and facilities at Mohegan Lake in the Historic Great Camp Special Area Plan, in accordance with guidelines pursuant to the Americans with Disabilities Act; and

WHEREAS, Department and Agency staff are continuing to work on the development of protocols for carrying capacity assessments and additional details on the management of public parking at Sagamore Lake will be developed as part of the Historic Great Camps Special Management Area; and

WHEREAS, the Department will be re-evaluating the potential for additional public parking at the existing parking area at Camp

Sagamore and has amended the plan to provide for a designated accessible parking space near Sagamore Lake and continued evaluation of parking areas associated with Camp Sagamore;

NOW, THEREFORE, BE IT RESOLVED, that pursuant to Section 816 of the Adirondack Park Agency Act, the Adirondack Park Agency finds the Blue Ridge Wilderness and Wakely Mountain Primitive Area Unit Management Plan, dated June, 2006, conforms with the general guidelines and criteria of the Adirondack Park State Land Master Plan; 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: R. Beach (DED), S. Buchanan (DEC), R. Hoffman (DOS), A. Lussi, K. Roberts, J. Townsend, L. Ulrich, R. Whaley

NAYS: C. Wray

ABSTENTIONS: None

ABSENT: None

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For me, and for thousands with similar inclinations, the most important passion of life is the overpowering desire to escape periodically from the clutches of a mechanistic civilization. To us the enjoyment of solitude, complete independence, and the beauty of undefiled panoramas is absolutely essential to happiness.

Bob Marshall

Like most other things not apparently useful to man, [wilderness] has few friends, and the blind question "Why was it made?'' goes on and on, with never a guess that first of all it might have been made for itself.

John Muir

We do not inherit the earth from our ancestors, we borrow it from our children.

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Preface

The Blue Ridge Wilderness (BRW[1]) and Wakely Mountain Primitive Area (WMPA) Unit Management Plan (UMP) 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 (APSLMP), Department of Environmental Conservation (Department) rules and regulations, Department policies and procedures and the State Environmental Quality Review Act.

Most of the State lands which are the subject of this UMP are 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, nor 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 Blue Ridge Wilderness and Wakely Mountain Primitive Area.

The APSLMP 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 APSLMP provides the 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 APSLMP 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, and sets forth management guidelines for the lands falling within each major classification. The APSLMP classifies and identifies the lands which are the subject of this UMP as the Blue Ridge Wilderness and Wakely Mountain Primitive Area.

The APSLMP sets forth guidelines for 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

[1]*See Appendix 1 for definitions of terms and acronyms used in this document.*

classified in one of the nine classifications set forth in the APSLMP. The UMPs must conform to the guidelines and criteria set forth in the APSLMP. Thus, UMPs implement and apply the APSLMP'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."

Acknowledgments

PLANNING TEAM

New York State Department of Environmental Conservation

DIVISION OF LANDS AND FORESTS

Area Manager and
Planning Team Leader: Richard Fenton, Supervising Forester, Northville

DIVISION OF FISH, WILDLIFE AND MARINE RESOURCES

Bureau of Fisheries: Richard Preall, Senior Aquatic Biologist, Ray Brook
Bureau of Wildlife: Paul Jensen, Senior Wildlife Biologist, Warrensburg
Edward Reed, Senior Wildlife Biologist, Ray Brook

DIVISION OF PUBLIC AFFAIRS AND EDUCATION

David Winchell, Citizen Participation Specialist II, Ray Brook

DIVISION OF LAW ENFORCEMENT

Lt. John Ellithorpe, Supervising Environmental Conservation Officer, Zone 4

DIVISION OF FOREST PROTECTION AND FIRE MANAGEMENT

Gregory George, Forest Ranger, District 5-6
Bruce Lomnitzer, Forest Ranger, District 5-6
Peter Evans, Forest Ranger, District 5-6
Michael Bodnar, Forest Ranger, Formerly District 5-6

DIVISION OF OPERATIONS

Bruce Richards, Conservation Operations Supervisor, Northville

Adirondack Park Agency

Walter Linck, State Land Program Assistant

CONTRIBUTORS

Charles Butler, Forester, Northville (no longer with DEC)
Michael Wilson, Associate Director, Sagamore Institute
Kristofer Alberga, Supervising Forester, Ray Brook

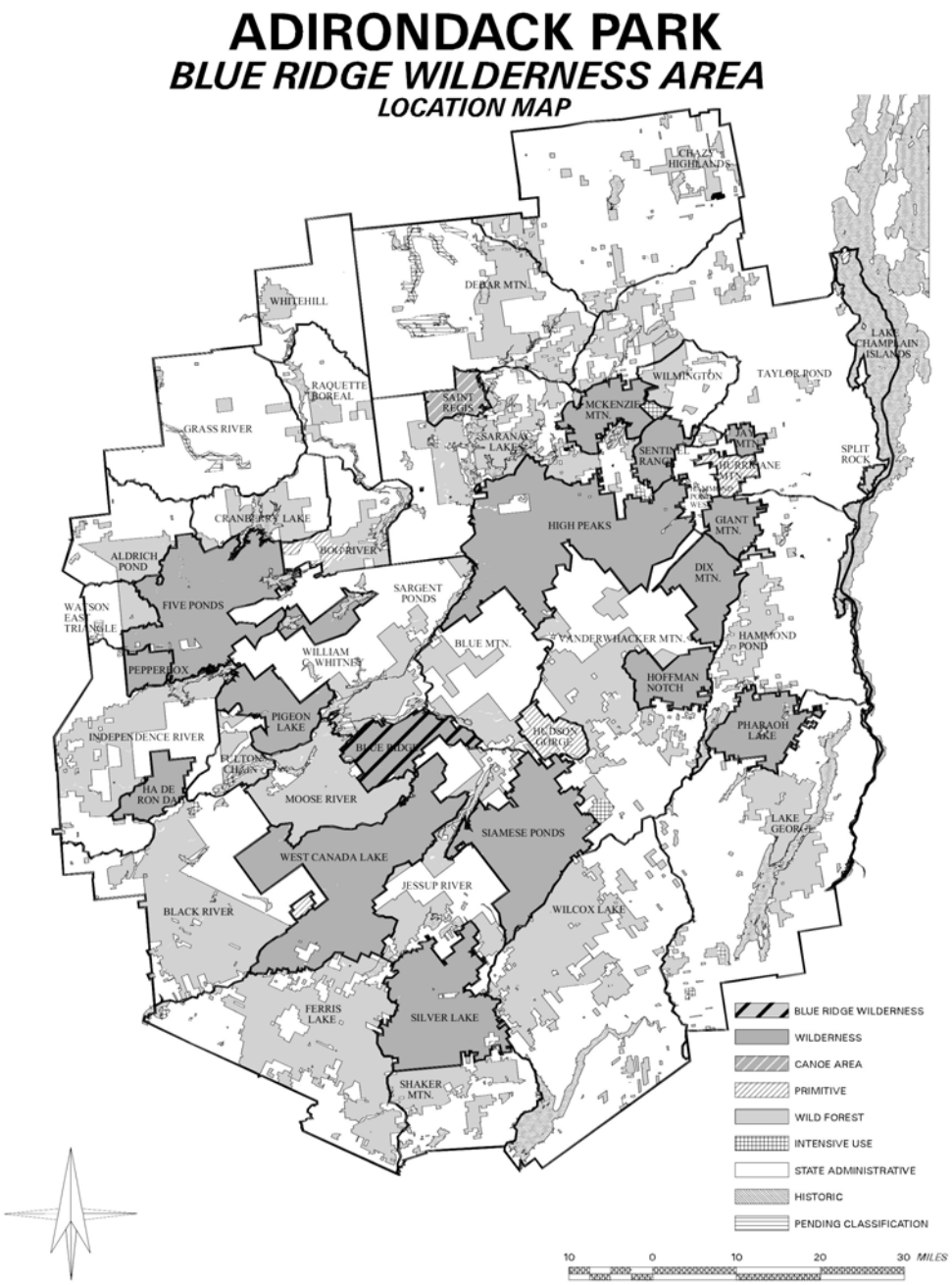

Figure 1. Blue Ridge Wilderness and Wakely Mountain Primitive Area Location

Section 1 – Introduction

Planning Area Overview

The 47,177-acre Blue Ridge Wilderness (BRW) and the 235-acre Wakely Mountain Primitive Area (WMPA) are located near the center of the Adirondack Park, in Hamilton County, near the hamlets of Raquette Lake, Blue Mountain Lake, and Indian Lake. The Blue Ridge Wilderness lies within the Towns of Arietta (16,612 acres), Long Lake (1,431 acres), Indian Lake (22,296 acres), and Lake Pleasant (6,838 acres). On June 3, 1925, the Village of Speculator was incorporated using the same boundaries as School District No. 3 of the Town of Lake Pleasant, Hamilton County. A satellite portion of School District No. 3, now the Village of Speculator, is wholly contained within the Blue Ridge Wilderness in the Town of Lake Pleasant's portion of Township 6 of the Totten and Crossfield Purchase of 1771. This portion of the Village of Speculator comprises approximately 4,600 acres. The Wakely Mountain Primitive Area lies within the Town of Lake Pleasant in Township 7 of the Totten and Crossfield Purchase and is not within the incorporated Village of Speculator. The combined BRW and WMPA units total approximately 47,412 acres. The State of New York annually pays full property taxes to Hamilton County, the Towns of Arietta, Long Lake, Indian Lake, and Lake Pleasant and the Village of Speculator, as well as full school taxes to the local school districts.

The UMP for the BRW and WMPA does not include the Lake Durant or Golden Beach Campgrounds. Separate UMPs will be completed for them. It does address the conservation easement on lands south of Eagle and Utowana Lakes, as well as a small unclassified Forest Preserve parcel near the Cascade Pond trailhead.

The northern boundary of the BRW is roughly defined by Lake Durant, the Lake Durant Campground, a mixture of private lands and the State rights-of-way along Route 28 from the South Inlet of Raquette Lake to Cedar River Road (Hamilton County Road 12.) This section of Route 28 is part of the Central Adirondack Trail, one of the legislatively designated system of Adirondack scenic byways. The BRW is bounded to the west and south by the Moose River Plains Wild Forest, Camp Sagamore, and Kamp Kill Kare. The BRW is further bounded to the east by Cedar River Road and private parcels along Cedar River Road. The two prominent features of these Forest Preserve units are the Blue Ridge and Wakely Mountain. Both landforms are oriented east-northeast with a local relief of approximately 1,500 feet. The 3,744-foot Wakely Mountain summit is part of the divide between the Great Lakes and the Hudson River watersheds and is the highest point in the Black River watershed, including the South Branch of the Moose River. The Wakely Mountain Primitive Area, which encompasses 235 acres, was created to accommodate the Wakely Mountain fire tower and associated structures. The Wakely Mountain Primitive Area is not well defined except to say that the southwestern and southeastern boundaries are former boundaries of lands gifted to the State of New York by Finch, Pruyn and Company. The boundaries became interior lines when the State acquired the remainder of Township 7 from International Paper Company in 1988.

The forest cover of the BRW and WMPA consists of typical mixed hardwood and softwood types with the higher elevations predominantly covered with red spruce and

balsam fir. Most of the area of old growth spruce and hemlock in the western half of the BRW was strongly affected by the 1950 blowdown. A substantial area was also affected, though much less severely, by the 1995 blowdown. The BRW is easily accessible along most of its perimeter. A portion of the Northville-Lake Placid Trail runs from the south boundary northward to the vicinity of Stephens Pond and Lake Durant. Campers from the Lake Durant Campground make use of the trails in that vicinity, while the chief use of the foot trail to Wilson Pond appears to be by anglers, hunters and summer visitors to the community of Blue Mountain Lake. With the exception of Sprague Pond and Wakely Mountain along the south boundary of this area, there appears to be little public use from that direction. The trail to Sawyer Mountain is a popular short hike near the east end of the unit, and unmarked trails near Great Camp Sagamore on the unit's west end are used by Sagamore guests and the public, especially the trail around Sagamore Lake. According to the APSLMP, approximately 5.5 miles of jeep trails and 5.5 miles of snowmobile trails were closed when the APSLMP was adopted in 1972. A modest stream-gauging station was placed in 1978 at the confluence of the East Inlet and Lost Brook on the former Sagamore property, now part of the BRW. This facility has since been removed.

Unit Geographic Information

The BRW lies within Townships 6, 7, 17, 19, 33, and 34 of the Totten and Crossfield Purchase of 1771 (Figure 2). Within these Townships, the following lots, or portions thereof, are included in the BRW with years of acquisition in parentheses.

Township 6: Lots1 and 2 (1897),
4-36 (1897),
38-40 (1897), (there is no lot 41),
42 - 55 (1897),
56-57 (1897 and 1975),
58 and 59 (1897),
60 and 61 (1897 and 1975),
62 and 63 (1897),
64 and 65 (1975),
66-68 (1897 and 1975),
69 (1975),
70 and 71 (1897),
72 (1975), (there is no lot 73,) and
74 (1897 and 1975);

Township 7: Wakely Mountain gift lands(1959),
NW 1/4 in Town of Arietta(1986), and
N ½ in Town of Lake Pleasant (1988);

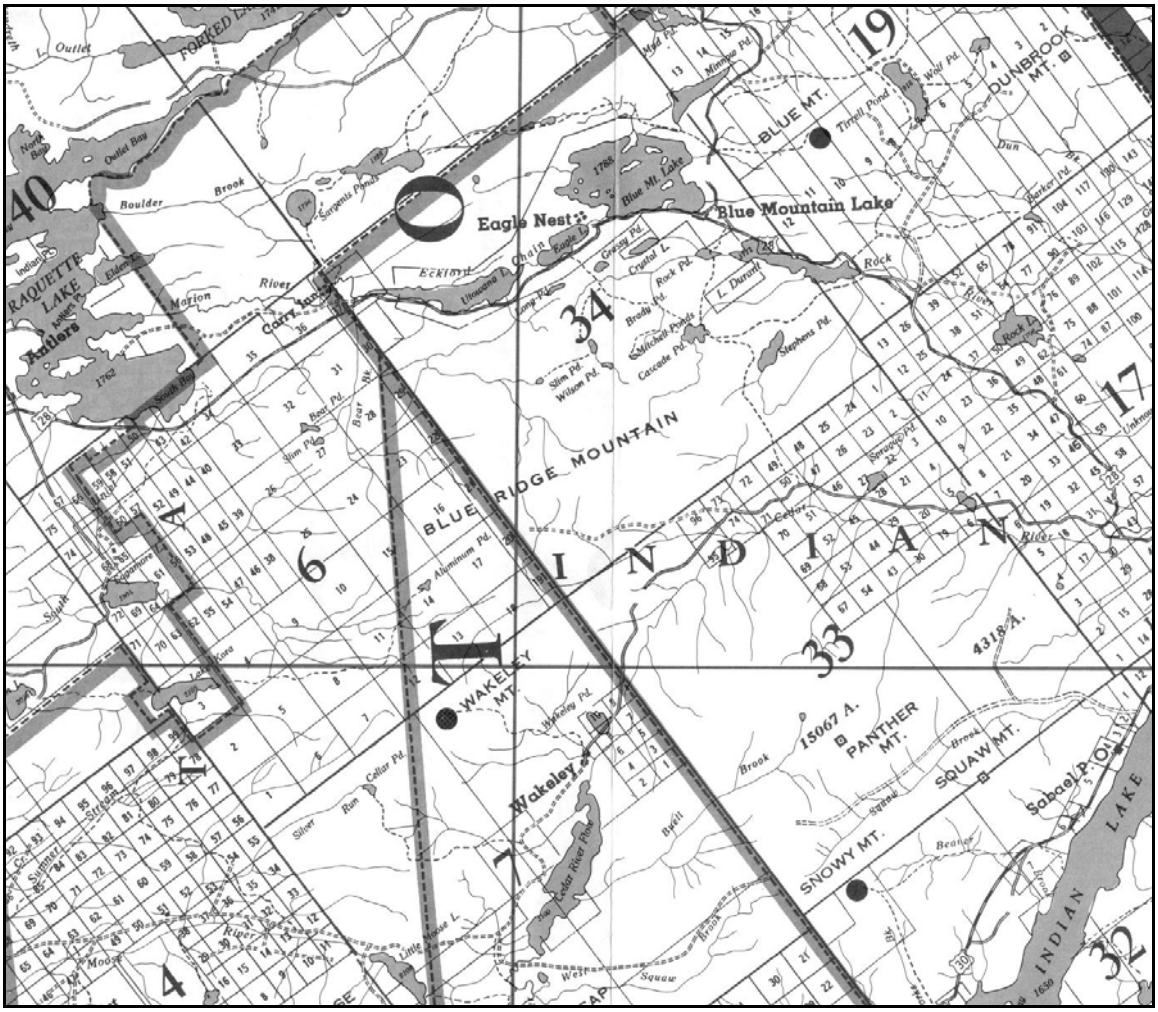

Figure 2. Townships and Great Lots In and Around the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Township 17:	Lots 6 and 7 (1900), 8 (1907), 9-11 (1900), 12 and 13 (1960), 18-24 (1900), 32-37 (1900), and 45-48 (1900);
Township 19:	Lots 11 and 12 (1906 and 1908);
Township 33:	Lots 1-4 and 21-27 (1877, 1881, 1885, 1900, 1905), 28 (1881, 1885, 1900, 1905), and gift lands in the western corner of Township 33 (Metcalf Mountain, Sugarloaf Mountain, and Round Top) (1955); and

Township 34: Unalloted State lands south of NY Route 28 except the 100-acre Durant Lot (1905 , 1906, and 1910);
Durant Lot (1963).

A more specific description of the BRW boundary, compiled from the Department's Adirondack Land Map and the APA Land Classification map, follows:

Beginning in Lot 43 of Township 6, T&CP, at the intersection of the eastern shore of the South Inlet of Raquette Lake and the south side of New York State Route 28 right-of-way, the BRW boundary progresses easterly 3.5 miles along the south side of the Route 28 right-of-way, through Lots 43, 42, 34, 35 and 36 to the boundary between Lots 36 and 37 of Township 6, thence following the south side of Lot 37, Township 6. Leaving Township 6 and entering Township 34 at the Marion River Carry Lot, the BRW boundary follows the south and east sides of the Marion River Carry Lot and then proceeds easterly 0.35 miles along the south side of the Route 28 right-of-way, thence leaving the right-of-way and bordering private lands of the Eagle Nest Corporation lands, the former Prospect House including Crystal Lake, and other private lands to a point on the north shore of Lake Durant, thence westerly along the north shore of Lake Durant to the foot bridge separating Lake Durant and Rock Pond, thence crossing the foot bridge to the south shore of Lake Durant, thence easterly along the south shore of Lake Durant to the Lake Durant Campground, thence two miles around the western, southern, and eastern boundaries of the 276-acre Lake Durant Campground to the southern side of the New York State Routes 28 and 30 right-of-way in Lot 11 of Township 19. From Lot 11 of Township 19, the BRW boundary continues east one mile along the Routes 28 and 30 right-of-way to Lots 26 and 25 (private land) of Township 17 to Lot 24. From Lot 24 of Township 17 the BRW boundary proceeds east 3.5 miles southeast along Routes 28 and 30 right-of-way through Lots 24, 37, 36, 35, 48, 47, 46, and 45 to Lots 44 and 31 (private land), thence 0.9 miles southwest and then 0.3 miles southeast around Lots 44 and 31 to the Hamilton County Road 12 (Cedar River Road) right-of-way, thence 1.75 miles westerly along the north side of Cedar River Road right-of-way to lots 18, 19, 6 and 7 to the boundary between Townships 17 and 33. Following the northeast side of Lots 6 and 5 and the northwest side of Lots 5 and 20 in Township 33, the BRW boundary returns to the north side of Cedar River Road right-of-way and proceeds west 0.8 miles through Lots 28 and 27 where the BRW boundary leaves Cedar River Road and proceeds northwest along lot lines to the boundary between Townships 34 and 33, thence southwesterly to the western corner of Lot 96 of Township 33, thence following the south side of gift lands in the western corner of Township 33, thence along the southwest side of Township 33 to the Cedar River Road. Then the BRW boundary enters Township 7 along the north side of Cedar River Road right-of-way, thence 0.6 miles southwest along the north side of Cedar River Road right-of-way to an old logging road system that skirts a bowl at the base of Metcalf Mountain and joins the Wakely Mountain trail, thence along the Wakely Mountain trail to an elevation of approximately 3,240 feet, thence counterclockwise around the WMPA to the southernmost tip of the WMPA, thence along what might be an old logging road that goes to a wetland at the headwaters of Cellar Brook, thence southwest down Cellar Brook, including the northwest shore of Cellar Pond, to the boundary between Townships 4 and 7, T&CP, thence northwesterly along the boundary between Townships 4 and 7 and Townships 4 and 6 to the private lands of

Kamp Kill Kare in Lot 3 of Township 6, thence northeasterly along the boundary between Lots 2 and 3 of Township 6, T&CP to the lot corner common to Lots 2, 3, 4, and 5 of Township 6, T&CP, thence northwesterly along the boundary between Lots 3 and 4 of Township 6, T&CP, to the lot corner common to Lots 3, 4, 62, and 63 of Township 6, T&CP, thence northwesterly along the boundary between Lots 62 and 63 of Township 6, T&CP, to the lot corner common to Lots 61, 62, 63, and 64 of Township 6, T&CP, thence southwesterly on the boundary separating Lots 63 and 64 and Lots 69 and 70 of Township 6, T&CP, to a dirt road in Lots 69 and 70, thence westerly along the dirt road to the Sagamore Institute property, in Lot 72 of Township 6, T&CP, thence northeasterly along the southeastern property line of the Sagamore Institute to the high water mark on Sagamore Lake, thence northwesterly along the high water mark of Sagamore Lake to the Sagamore Lake outlet (also known as the Raquette Lake South Inlet), thence southwesterly down the middle of South Inlet to Sagamore Road, thence northwesterly in Lot 68 along the northeast side of Sagamore Road to a second crossing of South Inlet, thence northwesterly across the second crossing of South Inlet and along the northeast side of Sagamore Road to a point 0.13 miles from the bridge that is an old Camp Sagamore property corner in Lot 67, thence northeasterly 0.53 miles through Lots 74 and 68 along an old Camp Sagamore property line to an old Camp Sagamore property corner in Lot 68, thence northwesterly 0.58 miles along an old Camp Sagamore property line to an old Camp Sagamore property corner in Lot 67, thence northeasterly 0.45 miles along an old Camp Sagamore property line to the eastern shore of South Inlet in Lot 59, thence along the eastern shore of South Inlet to the south side of the Route 28 right-of-way, the place of beginning.

The lands of the WMPA, located in the northern quarter of Township 7, were acquired in 1959 as part of a gift from Finch, Pruyn and Company for forestry purposes. According to the APSLMP, the WMPA "consists of the State land south of the Wakely Mountain Trail." This description was made before the State acquired the large tract south of the WMPA that is now a part of the MRPWF. It is problematic, in that it does not include the helipad, which is north of the trail. The official APA map of the area reflects a boundary intended to circumscribe all the structures in the primitive area. The shape of the WMPA resembles a triangle with a bowed hypotenuse. The southwestern boundary line is the last 3,000 feet of an old 4,290-foot boundary that separated the forestry gift land to the north from the lands of International Paper Company to the south. The old boundary line between the forestry gift land continues from the end of the 4,290-foot line and starts a new line that continues northeast 6,600 feet before tuning north. The first 4,762.35 feet of this second line is the southeastern boundary of the WMPA. The 3,000-foot southwestern boundary and the 4,762-foot southeastern boundary are connected by a 5,936.24-foot arc with a 5,280-foot (one mile) radius that forms the curved northern boundary of the WMPA. The one-mile radius of the northern boundary is a 2,280-foot southeasterly extension of the WMPA's 3,000-foot southwestern boundary (3,000 feet + 2,280 feet = 5,280 feet = 1 mile.) By calculation, these dimensions enclose 235.14 acres, in contrast to the area of 120 acres given in the APSLMP.

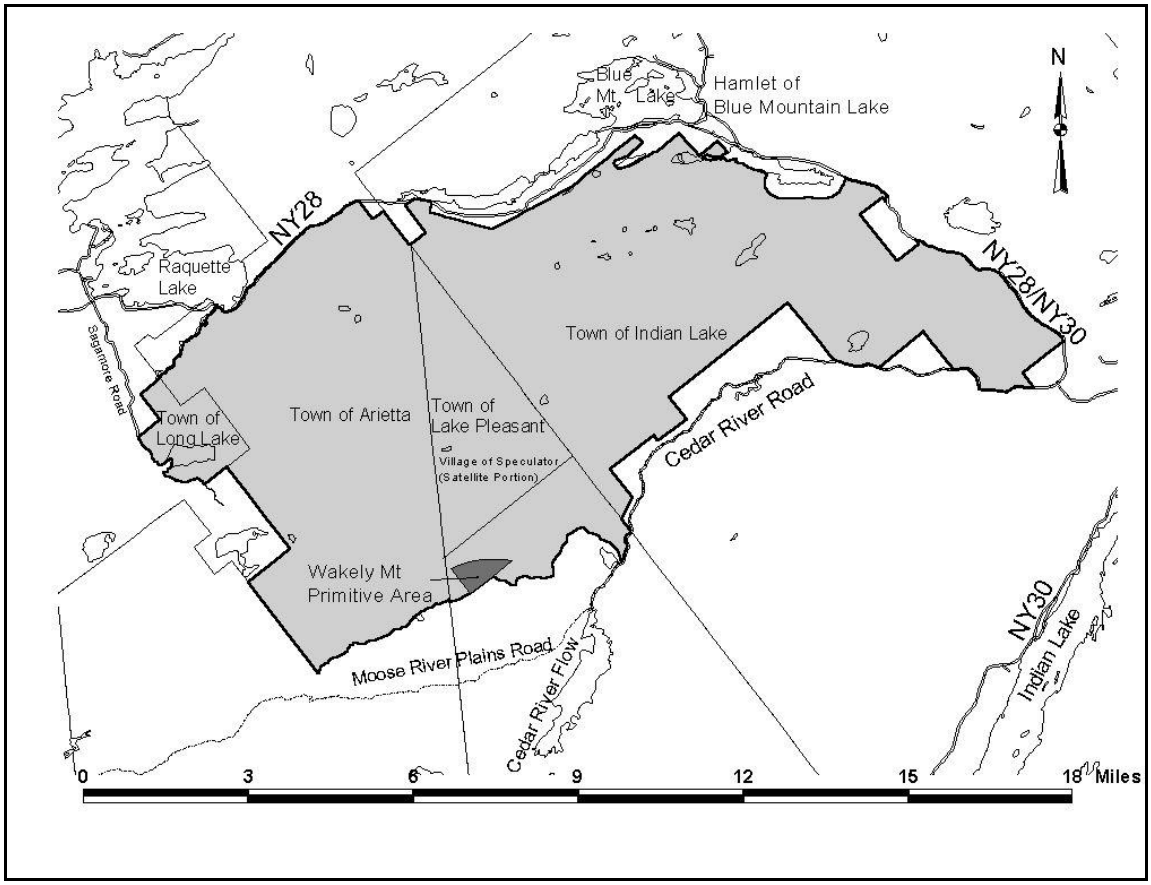

Figure 3. General Location of the Blue Ridge Wilderness and Wakely Mountain Primitive Area

General Location

The BRW is located within the towns of Indian Lake, Long Lake, Arietta and Lake Pleasant and the village of Speculator in Hamilton County. It is roughly bounded by Route 28 between the hamlets of Indian Lake and Raquette Lake on the north, Cedar River Road on the south, and Sagamore Road and the lands of Camp Sagamore and Kamp Kill Kare on the west. The WMPA surrounds the fire tower, observer cabin and helipad on the summit of Wakely Mountain (Figure 3).

The Sargent Ponds Wild Forest (SPWF) is immediately northwest of the BRW and the Blue Mountain Wild Forest (BMWF) is immediately northeast. Cedar River Road is the boundary between the BRW and small parts of the Jessup River Wild Forest (JRWF) south of Sprague Pond and Sawyer Mountain. The northeastern arm of the West Canada Lake Wilderness (WCLW) is within one-tenth mile of the BRW at a point along Cedar River Road where the road crosses the boundary between the Towns of Lake Pleasant and Indian Lake. The BRW shares most of its western boundary and about the western third of its southern boundary with the Moose River Plains Wild Forest (MRPWF). Lands of the MRPWF form part of the southern border of the WMPA. Finch, Pruyn and

Company owns over 15,000 acres in five parcels located in and around the Cedar River Road community. The BRW shares much of its southern boundary with these lands.

Acreage

Because detailed surveys are not available for most of the lands of the BRW, acreage figures have been obtained in different ways, and figures differ. According to the 2001 update of the APSLMP, the BRW has an area of 45,736 acres, and the WMPA comprises120 acres. The area of the BRW calculated from APA's digital land use coverage is 47,177 acres (including water bodies). The calculated perimeter is 57.99 miles. The area of the WMPA calculated from the same source is 225 acres, and the calculated perimeter is 2.69 miles. Using boundaries described by APA staff, the area of the WMPA is 235.14 acres, and the perimeter is 13,698.6 feet or 2.59 miles. Since the digital land use coverage is updated as mapping errors are discovered, these values for the BRW and WMPA may have changed. For planning purposes, the figure of 47,177 acres, derived from the APA digital coverage, will be used for the BRW. For the WMPA, the figure of 235 acres, calculated from the APA boundary description, will be used.

General Access

Public access to the BRW and WMPA generally is very good. The unit is accessible from public roads, trailheads associated with marked and unmarked trails, trail and road easements and navigable water.

Stretches of Routes 28 and 28/30, Cedar River Road, and Sagamore Road are adjacent to the BRW at a number places. In total, approximately 14 miles of the boundary of the BRW is adjacent to public highways. In addition to trailheads, occasional pulloffs along these roads can accommodate the parking of motor vehicles and afford trailless access to the interior. The road to private lands surrounding Lake Kora is the boundary between the BRW and the MRPWF for about a mile beyond the gate. Measures should be taken to inform the public that the road is open to public foot travel for access to State lands beyond the gate.

There are five designated trailheads that provide access to the BRW and WMPA (Figure 4):

1. The Wakely Mountain trail starts from an unpaved parking lot on the west side of Cedar River Road, approximately 11.8 miles west of its junction with State Route 28/30, which is about 1.5 miles west of the hamlet of Indian Lake. The trail proceeds 3.0 miles west through the MRPWF to the WMPA (the WMPA boundary is not marked) and the Wakely Mountain fire tower at the summit.

2. The Northville-Lake Placid Trail crosses the BRW. Coming from the north, the trail starts on the south side of Route 28/30, 2.6 miles east of the junction of Routes 28 and 30 in the hamlet of Blue Mountain Lake. There are paved parking lots on both

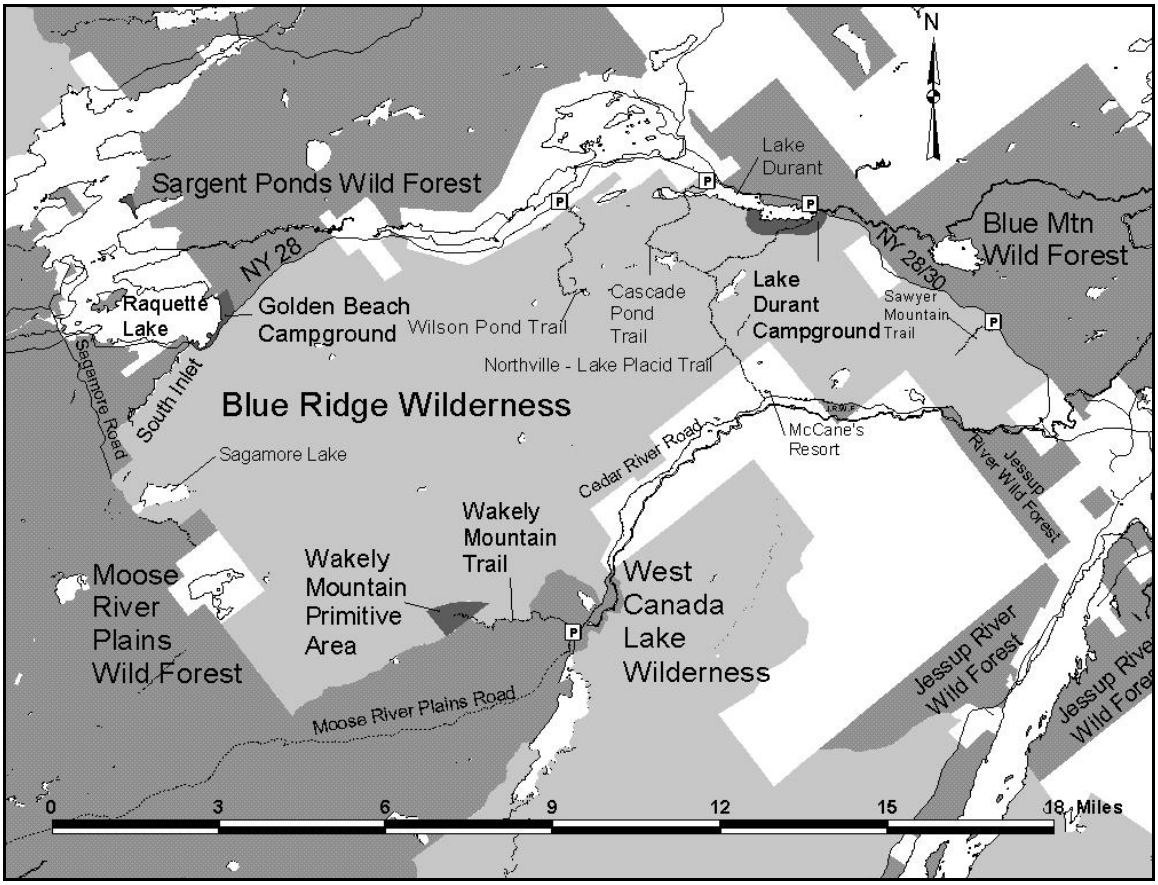

Figure 4. Access Points to the Blue Ridge Wilderness and Wakely Mountain Primitive Area

sides of the Route 28/30 right-of-way that can accommodate 15 to 20 cars. From the parking area the trail proceeds southeast 0.2 miles along old Route 30 through the Blue Mountain Wild Forest to the Lake Durant Campground. It continues 0.3 miles south over campground roads to a State truck trail. The truck trail proceeds west another 0.3 miles to a junction with a foot path. The foot path leads west another 0.1 miles to a trail register on the Northville-Lake Placid Trail. The trail proceeds west another 0.3 miles to the BRW boundary, which is not marked. From the boundary the trail proceeds south to Stephens Pond and on toward the former McCane's Resort. The trail passes through private lands for 0.8 miles and emerges onto Cedar River Road approximately 5.4 miles west of its junction with Route 28/30. The new owner of the former McCane's Resort allows only through hikers to cross his land, and only until the trail is relocated. Because parking is not available, the former McCane's Resort is not a designated trailhead.

3. The Sawyer Mountain trail leaves Route 28/30 2.2 miles west of its intersection with Cedar River Road, 6.0 miles east of the intersection of Routes 28 and 30 in Blue Mountain Lake. The trail goes 1.1 miles to an overlook on Sawyer Mountain. The paved parking area on the shoulder of Route 28 can accommodate seven cars.

4. The Cascade Pond trail begins in the hamlet of Blue Mountain Lake on an unpaved road near the western end of Lake Durant. The unpaved road is reached by following

Hamilton County Road 19, or Durant Road, a one-mile-long, paved residential road, crossing from Route 28 to Route 28/30. Two-tenths mile from the eastern terminus of Durant Road the narrow, unpaved road with a Department sign leads 0.1 mile to the Cascade Pond trailhead. From the trailhead, the Cascade Pond trail leads 100 yards west to the BRW boundary, which is not marked. (The first section of the trail is within a part of an unclassified Forest Preserve parcel recommended for inclusion in the BRW.) The trail to he pond is 2.7 miles long. The parking area, large enough for three cars, is muddy and not well defined.

5. The Wilson Pond trail starts from Route 28 at a point 2.7 miles west of the junction of Routes 28 and 30 in the hamlet of Blue Mountain Lake. It leads southeast 0.2 miles by deeded easement over private land to the BRW boundary, which is marked. The trail continues 2.7 miles to Wilson Pond, for a total trail length of 2.9 miles. Parking is provided on a wide, unpaved shoulder of the Route 28 right-of-way. The parking area is muddy at some times of the year and wide enough for about six cars.

A number of unmarked trails also afford access to the BRW. The 0.4-mile trail to Sprague Pond begins on Cedar River Road about 4.3 miles west of its intersection with Route 28/30. A pulloff on the south side of Route 28 about 8.3 miles west of the intersection of Routes 28 and 30 in the hamlet of Blue Mountain Lake serves the 2.5-mile trail to Slim Pond. A number of former Great Camp Sagamore carriage roads are accessible from Sagamore Road.

A deeded easement on a forest road across Finch, Pruyn and Company lands affords access to forestry gift lands in the Blue Ridge Wilderness in the western corner of Township 33, T&CP. The easement starts on Cedar River Road at approximately 9.1 miles west of its eastern terminus at Route 28/30 and progresses westerly 2,066 feet to the BRW and the base of Metcalf Mountain. There is no designated parking area associated with this easement, either along the Cedar River Road right-of-way, along the easement, or within the Blue Ridge Wilderness. This easement at one time provided the only access to the BRW in the western corner of Township 33, T&CP, but additional access was provided farther west on Cedar River Road when the remainder of the adjacent Township 7, T&CP was added to the Forest Preserve in 1988.

The BRW is accessible from the navigable waters of South Inlet. Motorboats may travel from Raquette Lake up South Inlet, the southeastern shore of which forms the boundary of the BRW. Canoes, kayaks and other small boats may be hand-launched into South Inlet from a waterway access site on the south side of Route 28. It is possible for small vessels, both motorized and nonmotorized, to travel to a landing area, from which people walk to a series of attractive cascades historically referred to as South Inlet Falls. The landing area is approximately 500 to 1,000 feet on the wilderness side of the point where the old lot line that separates the BRW from the MRPWF crosses South Inlet. There is no regulation prohibiting motorboat use or limiting speed on South Inlet, except the general regulation limiting speed to five miles per hour within 100 feet of shore. The MRPWF UMP contains a proposal to adopt a regulation designating South Inlet as a no-wake zone.

The public may launch boats into Raquette Lake from the town launch in the hamlet of Raquette Lake and from several private marinas. Small boats may be launched at the Golden Beach Campground. On the west shore of Sagamore Lake, the public may hand-launch small nonmotorized boats from a waterway access site and paddle some distance up East Inlet. Water access to the BRW is also possible from the south shore of Lake Durant. Boats have access to Lake Durant from the Lake Durant Campground boat launch. Small boats may also be hand-launched from the Cascade Pond trailhead access road, which leads to the Lake Durant shoreline. Starting 0.25 miles west of the Northville-Lake Placid trailhead on Route 28/30, a 0.8-mile segment of old Route 28–now a Town of Indian Lake highway–follows the shore of Lake Durant. Small boats may be hand-launched from a number of points along the road.

Easements

Two easements in the Town of Indian Lake provide access to the BRW. A third easement protects scenic resources adjacent to the BRW (Figure 5). In addition, there may be a foot trail easement from Route 28 across private lands to lands of the BRW at some point east of Crystal Lake.

The first easement is a right of ingress and egress attached to gift lands in the western corner of Township 33, Totten and Crossfield Purchase (T&CP), granted by Finch, Pruyn and Company to the People of the State of New York for forestry purposes. This gift was recorded by the Hamilton County Clerk on December 27th, 1955: Book 102, pages 13-15. Although the area of the acquisition was recorded as 809 acres, it was calculated to be 726 acres after the land was surveyed. The right of ingress and egress is a road of undetermined width, starting at Cedar River Headquarters Road (now Cedar River Road) at a point approximately 9.1 miles west of its eastern terminus at State Routes 28 and 30, and progressing westerly 31.3 chains (2,066 feet) to the gift lands. The deeded road is described in detail in the State of New York Conservation Department map 3896. The right to repair and maintain the road was also granted. Finch, Pruyn and Company has reserved the right to use the road in common with The People of the State of New York for any and all purposes. Correspondence from Finch, Pruyn and Company to the Department soon after the acquisition indicated that the purpose of the easement was intended to include public recreational access. Additional public access to the gift lands was provided when the State acquired adjacent lands in Township 7, T&CP, that border Cedar River Road.

The second easement is a trail, 16½ feet wide and 16.8 chains (1,109 feet) long for passage between State Route 28 and the BRW across lands of Eagle Nest Corporation in Township 34, T&CP. The easement was acquired by the State of New York from the

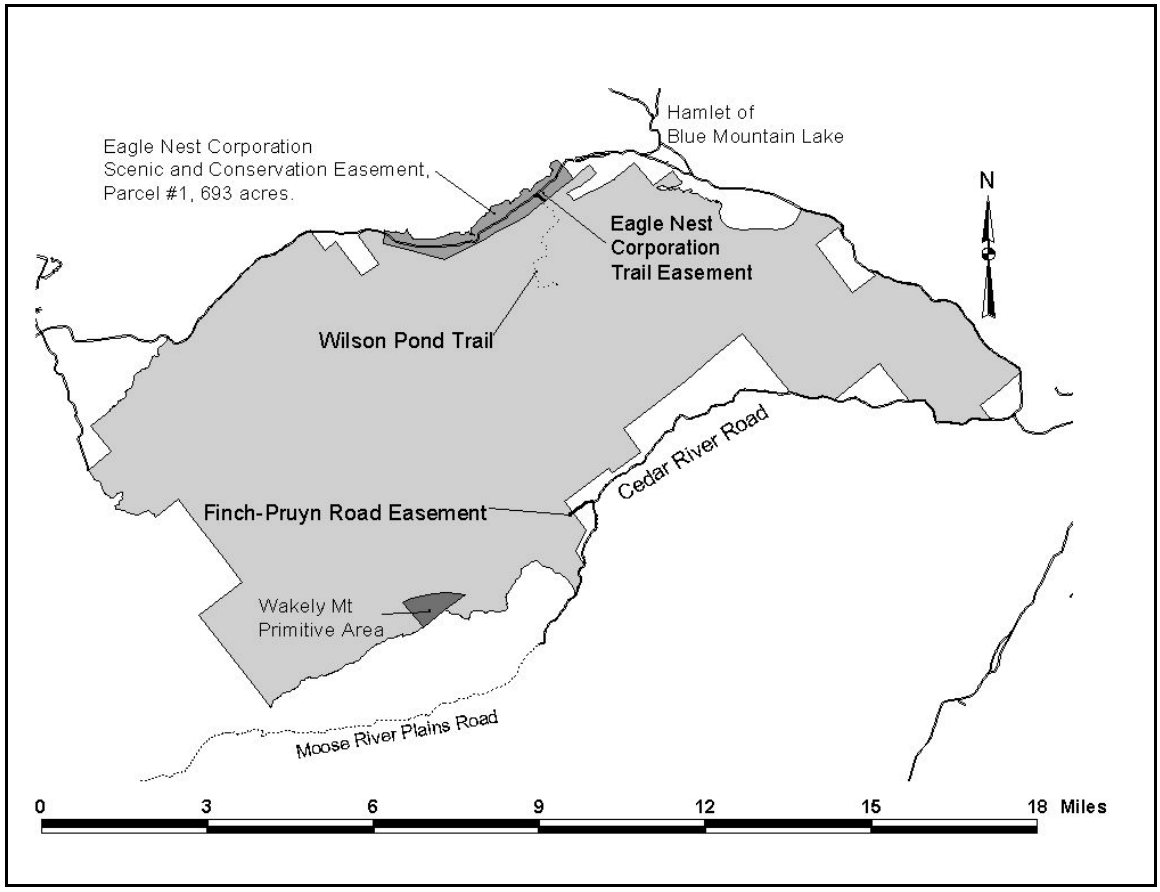

Figure 5. Locations of Department Easements Adjacent to the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Eagle Nest Corporation and the deed was recorded by the Hamilton County Clerk on November 16th, 1964: Book 130, page 564. A 1902 map, titled "Map of Property of Forest Park and Land Company in vicinity of Blue Mountain, Eagle and Utowana Lakes, Totten and Crossfield Purchase, Townships 19 and 34, Hamilton Co., New York" made by C. Muchlanbeck, is filed with the deed and contains a sketch of the easement across Township 34's Small Lots 357, 358, 359, 360, 361, 362, and 363. Though at present the trail to Wilson Pond is the only marked trail to which the easement route provides access, Department correspondence of the time indicated that a primary purpose of the easement was to reestablish the trail to Cascade Pond. The easement allows for travel by foot, skis, snowshoes or horseback. The easement also allows access for teams and trucks to construct, improve and maintain the trail, and the right to remove trees, stumps, rocks and other materials which are deemed hazardous to the public in the use of the easement and the further right to use any and all such materials in the construction, improvement and maintenance of the trail and the further right to make minor changes in the location of the trail as deemed necessary. The easement is not in use as described. Rather, a shorter trail has been constructed across small lots 357 and 358. This shorter trail is in conformance with the provisions of the easement.

The third easement is a scenic and conservation easement that prohibits new construction and logging, but does not provide for public access to the BRW. This easement was

acquired by the State of New York from the Eagle Nest Corporation and the deed was recorded by the Hamilton County Clerk on February 6th, 1974: Book 162, page 249. A map, titled "Map of Property of Forest Park and Land Company in vicinity of Blue Mountain, Eagle and Utowana Lakes, Totten and Crossfield Purchase, Townships 19 and 34, Hamilton Co., New York made by C. Muchlanbeck, April 20, 1902" is filed with the deed and identifies the small lots included in the easement. This easement consists of three parcels totaling approximately 849 acres. The easement serves to protect the natural forest character of the largest parcel, the 693-acre "Parcel No. 1,"which straddles Route 28 between the northern edge of the BRW and Utowana and Eagle Lakes. Parcels 2 and 3 are not adjacent to the BRW. The complete visual integrity of Parcel 1 is not guaranteed because the rights for utility right-of-way developments, both above and below ground, have been retained by the landowner. The easement prohibits public use on Parcel 1, except for the use of bridle paths, if granted by the landowner. Most private uses are also excluded, except for using and maintaining existing improvements, fuel wood cutting, removal of hazardous trees, and "open space recreational use," including the use of recreational machines. Open space recreational use is not allowed by any parties on Parcels 2 and 3, both of which may contain no improvements. This easement is revokable if the land is condemned by eminent domain.

The deed to a private parcel surrounding Crystal Lake (Hamilton County liber 139, page 423) includes the provision that the land was granted "subject to a right-of-way 10 feet wide along the easterly boundary line of Prospect Point, Inc. extending in a southerly direction to lands of the State of New York, said right-of-way to be used as a foot trail only, for access to and from lands o the State lf New York . . ." Research is needed to determine the status and location of the trail right-of-way.

Deed Provisions

Finch, Pruyn and Company conveyed two large parcels, now within the BRW and WMPA, as gifts to the State for forestry purposes. In 1955 the State took title to a 726-acre parcel in Township 33 encompassing Sugarloaf and Roundtop Mountains and the east end of Metcalf Mountain. In 1959 the State acquired a parcel of 1,173 acres in Township 7 including Wakely Mountain and most of Metcalf Mountain. The deeds to both parcels include the provision that they are given "for forestry purposes, in accordance with the provisions of Subdivision 7 of Section 50 of the Conservation Law of the State of New York." This law, now §9-0105(6) of the ECL, provides that the Department has the authority to:

> "Receive and accept, in the name of the people of the State, by gift, devise, or otherwise, the fee or other interest or estate therein of lands or timber or both, for general conservation purposes, including but not limited to watershed protection, forest management, production of timber or other forest products, silviculture, forest and outdoor recreation and kindred purposes."

In 2001 Finch Pruyn and Company sued the Department for the return of certain parcels within the Adirondack Park given by the company for forestry purposes in 1955, 1956

and 1962. The 1955 gift mentioned in the petition included the parcels within the BRW and WMPA. The company contended that the Department had violated the deed conditions by not actively managing the lands for forestry purposes which included, according to the company's interpretation, the harvesting of timber. The company further alleged that the lands had been improperly designated as Forest Preserve lands, on which the harvesting of timber is not permitted.

In 2002 the New York State Supreme Court ruled in agreement with the Department's assertions that the gift lands were classified in the APSLMP when it was adopted in 1972, and that the statute of limitations for challenging the applicability of that document to the management of the gift lands had long ago expired. The court also found that no language in the 1955 and 1956 deeds indicated that those lands were not intended to be added to the Forest Preserve, and no language in any of the deeds suggested that the State's ownership of the lands would terminate automatically upon the violation of deed provisions.

All lands within the BRW and WMPA will continue to be managed as Forest Preserve lands in accordance with the wilderness and primitive area guidelines of the APSLMP.

Agreements

From Route 28 south to a point about 100 feet north of the northern bridge over South Inlet, Sagamore Road is a town highway maintained by the Town of Long Lake. The town highway ends at the point where formerly a gate allowed entry only to the owners and guests of Camp Sagamore, Camp Uncas and Kamp Kill Kare. From that point south the road crosses Forest Preserve lands within the MRPWF, serving as the right-of-way to private lands near Sagamore Lake, Lake Kora and Mohegan Lake. The road also provides public access to Forest Preserve lands within the MRPWF and BRW. On October 28, 1977 the Department entered into a maintenance agreement with the owners of private lands served by the road. The agreement specifies the responsibilities of each party with regard to the maintenance of the road and the two bridges over South Inlet, and provides that all signs bordering the roads are subject to Department approval. An August 2, 1997 agreement between the Department and Sagamore Institute of the Adirondacks, Inc., which mainly concerns ownership and maintenance responsibilities for the three bridges on the roads between the end of the town highway and Camp Sagamore, includes a provision for sharing the maintenance of the road from the end of the town highway to the southernmost bridge over Sagamore Outlet, as well as the large parking area across from Sagamore. It makes no mention of the road south of that point. Once the MRPWF and BRW UMPs are adopted, these agreements should be consolidated and updated to include new property owners and to reflect UMP provisions related to road and bridge maintenance responsibilities, the gating of the roads leading to Mohegan Lake and Lake Kora and other appropriate matters.

In 1979 the Department entered into an agreement with the National Humanistic Education Center, Inc., the organization that owned Great Camp Sagamore and the lands surrounding Sagamore Lake before the State acquired most of those lands in 1975. Both

parties agreed not to use or allow the use of mechanically propelled vessels and aircraft on the lake. Subsequently the Department adopted a regulation prohibiting the use of mechanically propelled vessels and aircraft.

General History

Most of the Blue Ridge Wilderness was at one time owned or controlled by W. W. Durant, an Adirondack developer active from the mid-1870s through 1904. Former Durant lands include Townships 6, 19, 33 and 34 in the Totten and Crossfield Purchase.

1771	Joseph Totten and Stephen Crossfield, as agents of Edward and Ebenezer Jessup, purchase for King George III of Great Britain, the rights to 1.15 million acres in the central Adirondacks from the Mohawk Nation.
1779	Ownership of the Totten and Crossfield Purchase passes from the Crown of Great Britain to the newly designated State of New York. The State proceeds to dispose of its lands for settlement.
1849	Logging starts in and around the future Blue Ridge Wilderness.
1849	Winter road constructed from Cedar River Road past Stephens and Cascade Ponds to Eagle Lake.
1863	Lumberman James Ordway logs lands in Township 34.
1877-1905	State of New York acquires Lots 1-4 and 21-28 in Township 33, T&CP.
1888	William West Durant purchases Township 34, TC&P, from James Ordway.
1888	Durant purchases Township 6, TC&P, from Marshall Shedd.
1985-1901	Durant utilizes trees from Township 34 for his building projects.
1897	State of New York acquires most of Township 6 from Durant, with the exception of lands retained for Great Camp Sagamore, Kamp Kill Kare, and Lots 37, 50, 51, and 58.
1897	Durant sells Lake Tuscarora (a.k.a. Sumner Lake or Fonda Lake), now Lake Kora, and the surrounding estate to Lieutenant Governor Timothy L. Woodruff, who constructed Kamp Kill Kare.
1900-1907	State of New York acquires lands in Township 17, T&CP.
1901	Durant's Forest Park and Land Company sells Sagamore Lodge and the surrounding estate to Alfred G. Vanderbilt.

1901	Durant's Forest Park and Land Company sells 34,153 acres to the Raquette Falls Land company, headed by Patrick Moynehan, the lumberman.
1902	Durant's Raquette Lake Transportation Company is sold to Dr. William Seward Webb.
1904	Durant sells his remaining 3,494 acres to a group that formed the Eagle Nest Corporation.
1905-1908	State of New York acquires lands in Township 19, T&CP.
1906	State of New York acquires most of Township 34 from Patrick Moynehan.
1911	First fire tower on Wakely Mountain is constructed of wood.
1916	Steel fire tower is erected on Wakely Mountain.
1925	The Village of Speculator is incorporated on June 3, including approximately 4,600 acres of Forest Preserve in Township 6, Totten and Crossfield Purchase, now entirely within the BRW.
1950	The Great Appalachian Windstorm affects 16,000 acres (33 percent) of the BRW on November 24 and 25. A combined one-quarter of the BRW has between 50 and 100 percent of the tree cover blown down.
1955	State of New York acquires forestry gift lands from Finch, Pruyn and Company in the western corner of Township 33 (Metcalf Mountain, Sugarloaf Mountain and Round Top).
1953, 1954	Great Camp Sagamore is donated to Syracuse University.
1959	State of New York acquires Wakely Mountain gift lands from Finch, Pruyn and Company.
1963	State of New York acquires the Durant Lot, a 100-acre private parcel west of Lake Durant.
1972	First Adirondack Park State Land Master Plan is adopted, designating the Blue Ridge Wilderness and the Wakely Mountain Primitive Area.
1975	Syracuse University sells 1,517 acres of the estate of Great Camp Sagamore to the State of New York. The National Humanistic Education Center, later renamed the Sagamore Institute, purchases the remaining 7.71 acres of Great Camp Sagamore, including the main buildings but excluding eleven buildings existing on the State's newly-acquired lands.

1983	Article XIV of the New York State Constitution amended to transfer 10.9 acres of Forest Preserve land containing eleven Great Camp Sagamore buildings to the Sagamore Institute in exchange for 200 acres that the Sagamore Institute owned.
1986	State of New York acquires 1,220 acres in the northwest corner of Township 7.
1988	State of New York acquires the remainder of Township 7.
1995	July 15, 1995 Northeastern US Derecho (in-line windstorm) affects more than 15,000 acres of the BRW.
2000	The lands and buildings of Great Camp Sagamore are designated a National Historic Landmark.
2003	The Wakely Mountain fire tower is listed on the New York State and National Registers of Historic Places

Section 2 – Inventory of Resources and Human Influences

Natural Resources

This section contains information obtained from a variety of sources. To supplement the Department's ability to compile and organize the natural resource inventories for this and other UMPs, and to assist planners in analyzing resource information in the development of management proposals, the Department entered into an agreement with the UMP-GIS Consortium, a partnership of university, government, and non-profit organizations led by researchers at the Adirondack Ecological Center of SUNY College of Environmental Science and Forestry. The consortium has four objectives:

- Assemble the GIS database. Establish a collection of data layers from diverse sources.
- Provide interpretation and analysis. Offer GIS, statistical and ecological expertise.
- Maintain a data library for future users. Ensure high-quality, well-documented, consistent data that is compatible with existing DEC databases and flexible for inclusion of data in the future. Provide data documentation (metadata) including the description, age, scale, and original creator of the data.
- Provide technical support to DEC planners. Enable the planners to focus on planning rather than the finer points of using GIS software.

Staff of the Adirondack Ecological Center assisted in the development of this UMP by providing a map of potential spruce grouse habitat based on a model developed by APA (Figure 9) and a map showing the extent of the Adirondack Subalpine Forest Bird Conservation Area (Figure 10). They also developed a map of historical deer wintering areas and potential wintering habitat (Figure 11) and helped with the analysis of the potential impacts of trail proposals on wintering deer. They conducted a least cost path analysis of Northville-Lake Placid Trail alternatives and prepared a map (Appendix 20, Map 4), as well as a map of invasive species occurrences (Appendix 20, Map 3).

PHYSICAL

Geology

The BRW and WMPA are underlain mainly with metamorphic bedrock with metasedimentary limestone found in Cedar River and Rock River drainages on the northern and eastern periphery of the BRW. Metaplutonic intrusions have been mapped on the south side of Wakely and Metcalf Mountains. Exposed rock, which is found in 12 percent of the planning area, may generally be found on the summits, shoulders and escarpments of the prominent ridges in the BRW and WMPA. The remainder of the BRW and WMPA units are covered in alluvium in Cedar River and Rock River drainages (four percent), kames and eskers along the South Inlet drainage (one percent), glacial inwash in saddled uplands above the Cedar River watershed (four percent),

lacustrine sand in the Rock River drainage(one percent), glacial outwash on the eastern end of Raquette Lake (one percent), peat along the South Inlet shoreline (one percent), and glacial till (75 percent) from 0 to 50 meters thick. Water covers one percent of the BRW and WMPA units (NYS Museum/NYS Geological Survey 2000.)

Glacial features, such as basal till or ground moraine, eskers, kames, outwash plains, and inwash are the result of repeated advances and recessions of the Laurentide Ice Sheet and of local alpine glaciers during the Pleistocene Epoch. Active continental glaciation ceased in the Adirondacks approximately 11,000 years ago, although remnant ice blocks may have continued to melt long after they were separated from the active lobes (NYS Museum/NYS Geological Survey 1991.)

Soils

Soils information for the BRW and WMPA were acquired from the USDA Soil Conservation Service's 1:62,500 scale map, *General Soils of the Adirondack Park*, which was digitized in 1983 by Applied GIS, Inc. for the Adirondack Park Agency. The following information was derived from this digital map using ArcView version 3.3 (1996 Environmental Systems Research Institute).

The soil conditions in the BRW and WMPA units are predominantly influenced by terrain and surficial geology. Soils are shallowest on summits and slope shoulders and deepest on toeslopes and valley bottoms. Soil drainage mirrors soil depth with the more easily drained soils occurring on summits and slope shoulders and more restricted drainage occurring in valley bottoms. Tree growth is optimal in deeper soils on toeslopes and midslopes, but poor in shallow soils on summits and shoulders. Tree growth is also poor in poorly drained soils in valley bottoms where root growth is restricted due to a high water table. Soil mapping for the area is relatively consistent with the surficial geology map. Soils in the BRW and WMPA formed mainly in glacial till (75 percent). Glacial till is locally unsorted with particle sizes ranging from clay particles less than 2 microns to boulders that are 20 feet high. Basal till or ground moraine is the parent material for approximately 54 percent of the BRW and WMPA units. Favorable tree growth is associated with the occurrence of basal till, however tree growth in the BRW and WMPA units is further refined by soil drainage with excessively drained soils and poorly drained soils hampering tree growth. Other till deposits cover 21 percent of the BRW and WMPA units and are relatively shallow over bedrock. Ten percent of the soils in the BRW and WMPA formed in glacial meltwater features such as outwash plains, kames, eskers, and inwash. These soils are sorted into coarser sand and gravel sized particles and drain quickly when not influenced by a high or perched water table. One percent of the soils in the BRW and WMPA units were formed in peat where tree growth is generally slow. Twelve percent[1] of the BRW and WMPA units is rock outcrop where tree growth is generally slow or impossible. The remaining 2 percent of the BRW and WMPA is covered in water where lacustrine sands provide a substrate for emergent vegetation. (USDA Soil Conservation Service 1975.)

[1] *A review of aerial photography indicates that the actual area of rock outcrop is much less.*

A detailed *Soils Report for Selected Areas in Hamilton County, New York* was prepared by the Soil Conservation Service in February 1982, but this report targets private lands. The soils on Forest Preserve lands such as the BRW and WMPA were not mapped in this report because they have been permanently removed from agricultural and silvicultural commodities production. Extrapolation of soil map units from mapped areas onto Forest Preserve lands is not recommended because the map units were developed based on data collected for those units that were sampled, mainly in lowlands. The ranges of soil properties of the mapped lowlands will differ greatly from the interior uplands of the Forest Preserve. A new, detailed soil survey of Hamilton County has been completed and mapped, but not published. Preliminary data for this soil survey is available as *The Classification and Correlation of the Soils of Hamilton County* (USDA Soil Conservation Service 1994.) More detailed soils information will be available for the BRW and WMPA units once this new soil survey is published.

Terrain and Topography

The highest elevation in the BRW (Wakely Mountain is not in the BRW) is 3,598 feet at a point 0.75 miles west of the Wakely Mountain summit (4842540 m North, 537888 m East, UTM Zone 18N, 1983 North American Datum.) The BRW's lowest elevation is at approximately 1,675 feet on Cedar River Road where it meets the BRW, 0.4 miles west of the junction of Cedar River Road with State Route 28/30 (4848129 m North, 555348 m East, UTM Zone 18N, 1983 North American Datum.) The highest elevation in the WMPA is the Wakely Mountain summit at 3,744 feet (4842774 m North, 539072 m East, UTM Zone 18N, 1983 North American Datum.). The lowest point in the WMPA is approximately 2,855 feet in an unnamed drainage (4842824 m North, 539803 m East, UTM Zone 18N, 1983 North American Datum.)

Points of interest in the BRW and WMPA include Wakely Mountain with its fire tower, Blue Ridge, Sawyer Mountain, Stephens Pond, Sprague Pond, Cascade Pond, Slim Pond, Bear Pond, Wilson Pond, Sagamore Lake, South Inlet and Death Brook Falls (Figure 6). The BRW and WMPA are covered by the following USGS topographic quadrangles:

- 7.5' x 15' series (1:25,000 scale) - Indian Lake (1990), Wakely Mountain (1990), Blue Mountain Lake (1989), Raquette Lake (1989);
- 15' x 15' series (1:62,500 scale) - Indian Lake (1902 and 1954), West Canada Lakes (1903 and 1954), Blue Mountain (1903 and 1954), Raquette Lake (1903 and 1954);
- 30' x 60' series (1:100,000 scale) - Raquette Lake (1985); and
- 1° x 2° series (1:250,000 scale) - Utica (1962).

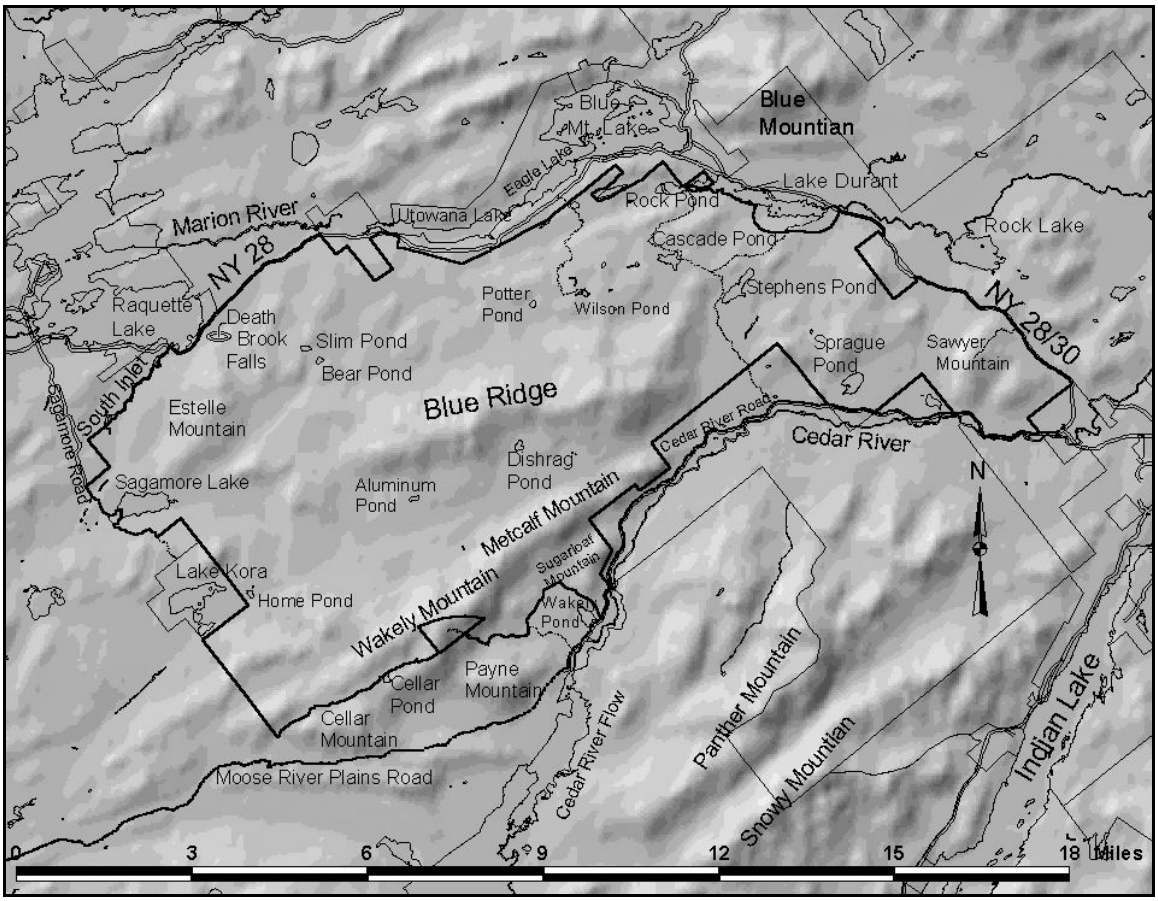

Figure 6. Blue Ridge Wilderness Points of Interest

Water

RIVERS AND STREAMS

The BRW includes headwater portions of the Upper Hudson, Raquette and Black River watersheds. Approximately 63 miles of primarily first and second order, cold water streams are found within the unit. Many of these streams include sections of high gradient (100+ feet/mile) and some may include barriers impassable to fish.

The Raquette River watershed portion of the BRW includes portions of South Creek (the outlet stream for Sagamore Lake), Bear Brook, Lost Brook and Loon Brook. Headwater streams which feed the Upper Hudson drainage in the BRW are tributaries to Lake Durant and Cedar River. A few short sections of headwater tributaries to the South Branch Moose River in the southwest corner of the BRW are part of the Black River watershed.

Wild, Scenic and Recreational Rivers

None of the rivers and streams within the BRW and WMPA has been classified as a wild, scenic or recreational river under the New York State Wild, Scenic and Recreational

River System Act. However, parts of the BRW are within the river areas of designated rivers flowing adjacent to or near the boundaries of the unit. It is assumed that State land component of the river area for each of the river reaches listed in Table 1 comprises the land within one-half mile of the high water mark on both sides of the river. A final determination of the boundaries of the river areas of rivers flowing through State lands will be made in the UMPs for the units through which the rivers flow.

Table 1. River Areas Within the Blue Ridge Wilderness

River	Designation	Parts of BRW Within River Area	Nonconforming Uses
Marion River	Scenic	Small areas on northern border between Raquette Lake and Utowana Lake	None
Rock River	Recreational	Area on northern border east of Lake Durant	None
Rock River	Scenic	Small area on northern border east of Lake Durant	None
Cedar River	Recreational	Area on southern border south of south shore of Sprague Pond; area on southern border south of Sawyer Mountain	None
Cedar River	Scenic	Area on southern border from Round Top Mountain south; area on southern border including Sugarloaf Mountain	None

LAKES AND PONDS

The BRW includes 22 lakes and ponds greater than one-half acre in size which have been enumerated by the Department's New York State Biological Survey Unit. The total surface area of these waters is approximately 450 acres. Numerous smaller water bodies are found in the unit, but most of these are shallow beaver ponds which are ephemeral in nature. At 166 acres, Sagamore Lake is the largest water body in the BRW, although a portion of its shoreline is privately owned. Other notable ponded waters include 65-acre Stephens Pond, 59-acre Sprague Pond and 35-acre Cascade Pond.

Appendix 4 lists the 22 ponded waters in the BRW and provides some geographical and morphometric data and the fisheries management classification for each water (Table 1a). Table 1b in Appendix 4 gives additional data pertaining to biological and/or chemical survey data collected on 18 of the 22 waters in the BRW. Appendix 5 provides pond narratives which reiterate some data in Appendix 4, but also include historic and proposed management actions applicable to each water body.

Wetlands

Wetlands serve as an important water filtration and water retention mechanism in the three watersheds that are straddled by the BRW and WMPA units. The high water tables associated with wetlands serve to restrict root growth in plants and thus actually become water-limiting environments for many upland plants. Hydrophytic plants, which dominate wetlands, have adapted to these water-saturated environments, but are often out-competed on the drier uplands, even though their potential growth might be greater in better drained soils where root growth is not so restricted.

The watersheds served by these wetlands include the Hudson River, Black River and Raquette River. These wetlands have been mapped according to the United States Department of Interior, Fish and Wildlife Service's National Wetlands Inventory (NWI) standards by Plattsburgh State University (Allen 2000).

There are 5,345 acres of wetlands accounting for 11 percent of the Blue Ridge Wilderness and Wakely Mountain Primitive Area (Allen 2000). 52 percent of the mapped wetland acreage is conifer forest, 11 percent is conifer shrub, 13 percent is evergreen broad-leaved shrub, six percent is deciduous broad-leaved shrub, one percent is broad-leaved deciduous forest, 11 percent is non-vegetated open water, and 6 percent is non-woody emergent vegetation.

For a given area to be classified as wetland, either by the U.S. Army Corps of Engineers or the NWI, it must meet minimum criteria for aerial extent, hydrology, plant species composition and soil morphology. Many areas that function as wetlands may not meet one or more of the four delineation criteria groups. For instance, a wetland may be too small to be designated or mapped as a wetland. Many wetlands may not occur in obvious locations such as perched wetlands found on steep slopes and watershed divides and may be overlooked. On average, Hamilton County receives approximately 50 inches of precipitation per year (USDA .) Coupled with a short growing and decaying season, there is, in the absence of an active fire regime, the potential for large accumulations of organic matter in all landscape positions. These organic accumulations, commonly found in poorly drained lowland environments, serve to retain moisture to the extent that a hydrologic regime, soil hydromorphic features and hydrophytic vegetation become established. In fact, one of the reasons cited for the creation of a forest preserve was that logging exposed too much of the forest's decaying organic matter to sunlight, warmer temperatures and oxidation. This landscape-wide alteration of what were perched wetlands was blamed for decreased water retention in the landscape and subsequent increased peak flows and reduced base flows in streams and rivers. Thus, the estimate of wetlands occurring in 11 percent of the BRW and WMPA units may be conservative.

Climate

Climate data for the BRW and WMPA has been collected from a number of sources including the USDA NRCS National Water and Climate Center. The BRW and WMPA units are in USDA Hardiness Zones 3b and 4a for the western and eastern halves of the

planning area. Hardiness zone 3b has an average annual minimum temperature range of -30°F to -35°F and hardiness zone 4a has an average annual minimum temperature range of -25°F to -30°F (USDA 1990). The last spring frost occurs after May 30 and the first fall frost occurs before September 10, resulting in a freeze-free season of less than 103 days.

The average annual precipitation in the BRW and WMPA for the climatological period 1961 to1990 ranged from a low of 39 inches in the eastern end of the BRW near the junction of Route 28/30 to 59 inches on Wakely and Metcalf Mountains (Figure 7, USDA

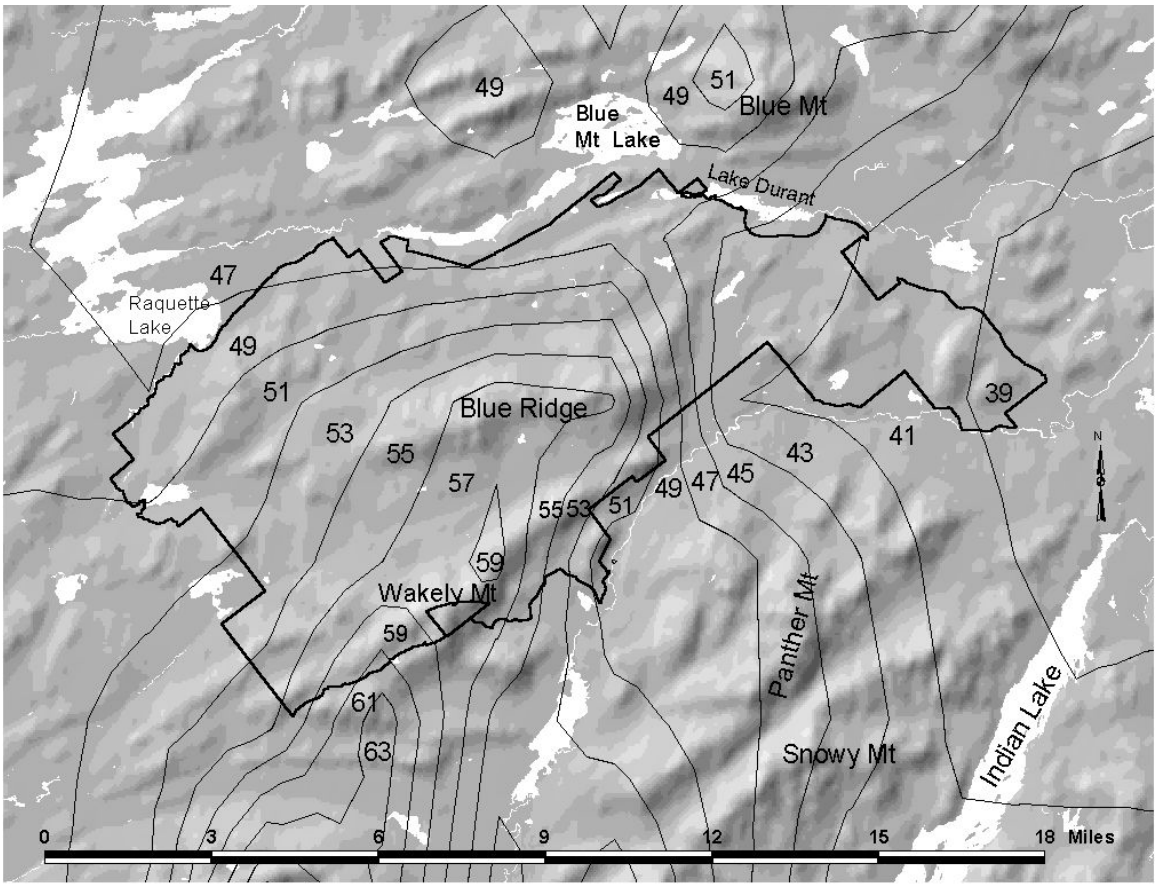

Figure 7. Average Annual Precipitation in Inches in the Area Including the Blue Ridge Wilderness and Wakely Mountain Primitive Area, 1961-1990

NRCS National Water and Climate Center, 2000.) The Blue Ridge and Wakely Mountain exert a strong topographical influence on precipitation patterns resulting in the higher elevations receiving between one and three inches more precipitation per month than the lowest elevations on the western tip of the BRW. These differences result in an average annual precipitation gradient of 12 inches over a two mile distance, one of the steepest in New York State for the 30-year period. This spike in precipitation, with average annual precipitation levels exceeding 57 inches per year, starts at the Blue Ridge summit and extends generally south-southwest over 29 miles to Wakely Mountain (59 inches), Little Moose Mountain (67 inches - the highest average annual precipitation in New York State), Pillsbury Mountain (65 inches), T-Lake Mountain (61 inches) and the west end of

Piseco Lake (57 inches.) The weighted annual average precipitation for the BRW and WMPA units is 51 inches. By contrast, the weighted annual average precipitation is 43 inches for the High Peaks Wilderness and 55 inches for the West Canada Lake Wilderness. The average monthly precipitation from 1961-1990 was 4.22 inches. Average monthly precipitation increased from 3.00 inches in February to 5.14 inches August and then decreased through February. January, February, March and April were the driest months.

On average, the BRW and WMPA receive 51 to 55 percent of available sunshine per year. This results from an average of 2200 to2400 hours of sunshine occurring during 60 to75 clear days, 96 to100 partly cloudy days and 181 to 200 cloudy days. The BRW and WMPA have an average of 21 to 25 freezing rain days per year. Average annual relative humidity is 56 to 65 percent over most of the BRW and WMPA except on the Blue Ridge and Wakely Mountain summits where it is 66 to 75 percent. On average, there is less than 12 hours per year when the air temperature in the BRW and WMPA is at or above 90°F.

Average annual wind speed in the BRW and WMPA is eight to nine miles per hour. Peak gusts at or above 40 miles per hour occur an average of 21 to30 times a year and peak gusts at or above 50 miles per hour occur an average of four times a year.

Air Quality and Acidic Deposition

The effects of various activities on the air quality of the BRW and WMPA have not been specifically determined. An atmospheric monitoring station, located in a clearing near the northwest corner of Sagamore Lake, was removed after the land was acquired from Syracuse University in 1975 and reclassified as wilderness.

Air quality in the Adirondack 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 that include a large number of small diameter particles. 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 New York State Atmospheric Science Research Station located on Whiteface Mountain, along with other researchers. The preeminence of Whiteface as a high mountain apart from the other High Peaks, in the face of prevailing winds, with a long-term collection of weather research data, makes it an outstanding outdoor research laboratory.

According to recent results of lake chemistry monitoring by the Department 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. While the decrease in sulfates is consistent with decreases in sulfur emissions and deposition, the increase in nitrates is not consistent with the stable levels of nitrogen emissions and deposition observed.

Continued monitoring by collection and analysis of acid deposition will allow the monitoring network to determine if improvements will continue as a result of the reductions of SO_2 and NO_4 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 subject to high deposition rates.

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 six million acres of forest, lakes, streams and mountains interspersed with dozens of small communities with a large seasonal population fluctuation. However, due to the geography and geology of the Park, 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 rainstorm 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 microequivalents per liter (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 percent of the target population lakes are at risk of episodic acidification at least once during the year.

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 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.

MONITORING

From 1992 through 1999, sulfates declined in a majority of selected lakes by the ALSC, 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.

The ALSC surveyed six of the waters in this unit between 1984 and 1987 (see Appendix 4). Summaries of the data can be found on the ALSC website: http://www.adirondacklakessurvey.org (see ALS Pond Information). 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. Sagamore Lake is one of these waters that is located within the boundaries of the BRW, and another–Raquette Lake Reservoir–is just to the west of the unit. Annual summaries of 22 chemical parameters are downloadable from the ALSC website.

BIOLOGICAL

Vegetation

GENERAL COVER TYPES

The BRW and WMPA are located within the Central Adirondacks ecological zone (Reschke 1990). The units contain the following vegetative cover types (Figure 8):

Sugar maple (21.5 percent); northern hardwoods with pine, hemlock, and spruce (26.1 percent); spruce-fir (43.2 percent); lowland coniferous (5.2 percent); northern white cedar swamp (<0.1 percent); shrub swamp (0.5 percent); mixed wetland forest (<one percent); white pine and red pine (<0.1 percent); old field/pasture (<0.1 percent); lowland deciduous (<0.1 percent); and emergent marsh/open fen/wet meadow (<0.1 percent) cover types and open water (3.2 percent).

The sugar maple cover type is dominated by sugar maple, American beech, basswood, white ash and yellow birch. The northern hardwoods cover type is dominated by sugar maple, red maple, American beech, white ash, green ash, yellow birch, paper birch, grey birch, black cherry, eastern hemlock, red spruce and white pine and is found at lower elevations, just above the swamps. The spruce-fir cover type is dominated by balsam fir and red spruce and is found in two distinct areas: on mountains at elevations between 3,000 and 4,000 feet and at lower elevations in poorly drained soils. The lowland coniferous cover type is dominated by red spruce, balsam fir, black spruce, white spruce and highbush-blueberry. The northern white-cedar swamp may also contain eastern hemlock, eastern white pine, tamarack, black spruce, white spruce, black ash, red maple and yellow birch. The lowland deciduous cover type is dominated by alder, dogwood and willow species, leatherleaf, buttonbush and highbush-blueberry. The emergent

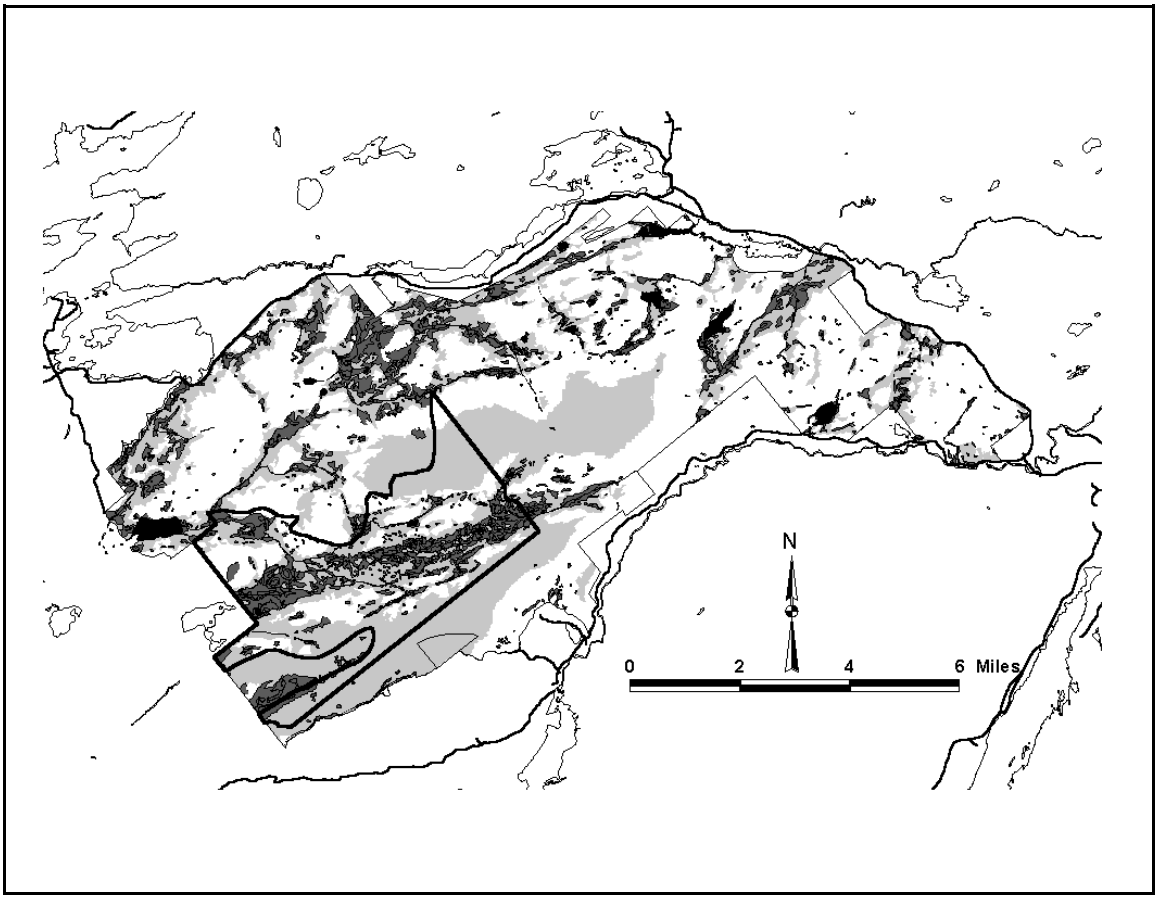

Figure 8. Blue Ridge Wilderness and Wakely Mountain Primitive Area Cover Types. Legend: Black = Water, Dark Gray = Wetlands, Light Grey = Upland Conifers, White = Northern Hardwoods. The relatively undisturbed old growth forest in township 6 is designated with a heavy black border.

marsh/open fen/wet meadow cover type is dominated by graminoids and herbs and sometimes associated with woody lowland species.

HISTORIC CONDITIONS

The 1916 "Fire Protection Map of the Adirondack Forest," prepared by the New York State Conservation Commission, presents information regarding a number of general categories of forest condition as it was known at the time. Much of the timber in Township 34, T&CP, constituting most of the eastern half of the BRW, was harvested in the late 1800s. The map indicates that as of 1916, ten years after the State had acquired most of the land in the township, the area had been “logged for softwood only.” It would be expected that old growth hardwood trees would remain, such as the very large and mature sugar maples found on the lower eastern slopes of the Blue Ridge along the boundary separating Townships 34 and 33. Township 6, encompassing most of the western half of the BRW, is likely to have been less subject to timber harvest. The 1916 map shows all of the part of Township 6 within the BRW and WMPA as “green timber, virgin and second growth, no slash.”

1950 AND 1995 WIND EVENTS

According to Department mapping records, the November 25, 1950 inland hurricane blew down 50 to100 percent of the overstory trees in about 25 percent of the area of the BRW, mostly in a roughly triangular block of approximately 10,000 to 12,000 acres, generally delimited by Route 28 and South Inlet on the northwest, a line eastward from Sagamore Lake on the south, and a line southward from Utowana Lake on the east. An additional 3,000 to 4,000 acres, or eight percent of the BRW, sustained a 25- to 50-percent overstory removal, mostly in a block surrounding Wilson Pond. In total, up to approximately 16,000 acres, or 33 percent of the area of the BRW, was disturbed by the 1950 blowdown. No damage in the WMPA was mapped. Information about individual salvage logging contracts, including maps occasionally showing the system of logging roads in great detail, is on file in the Department's Northville office.

On July 15, 1995 a microburst swept across the Adirondack region. Generally, though damage to the BRW and WMPA was extensive, it was less severe than that caused by the 1950 storm. Department mapping records indicate that the windstorm affected as much as 15,000 to 16,000 acres, or 33 percent of the BRW, in a band along the northern one-third of the unit between the Lake Durant Campground and Sagamore Lake. However, approximately 14,000 acres sustained an overstory removal of only 0 to 30 percent, with approximately 1,100 acres sustaining a 30- to 60-percent overstory removal. No damage was mapped within the WMPA.

OLD GROWTH FOREST

A review and comparison of available records indicates that a fairly large area of relatively undisturbed old growth forest occurs in the southern half of Township 6. It is possible that little if any of the township had been logged when the State acquired most of it from William West Durant and added it to the Forest Preserve in 1897. However, much of the northern half of the part of Township 6 within the BRW–the area hardest hit by the 1950 blowdown–was affected by extensive salvage logging. The same area was also disturbed by the 1995 windstorm. Despite the impacts of windstorms and salvage logging, there are areas with large old trees throughout the northern part of Township 6. But approximately 9,000 acres in the valley between Blue Ridge and Wakely Mountain may have completely escaped nineteenth century logging, the great fires of the early twentieth century, and the great blowdowns of 1950 and 1995. The undisturbed old growth area includes approximately 5,500 acres of spruce, 900 acres of evergreen wetland, 400 acres of sugar maple, and 1,900 acres of northern hardwoods.

A natural stand of large red pine is found at the junction of the South Inlet of Raquette Lake and Route 28. This stand was probably created by a natural fire regime and the droughty conditions of the sandy glacial outwash where it is located. The coarser textured soils in uplands along the South Inlet and around Sagamore Lake, coupled with the USDA plant hardiness zone-3b designation, would make this part of the Blue Ridge Wilderness ideal for natural stands of red and white pine, if not for the long absence of fire.

SIGNIFICANT ECOLOGICAL COMMUNITIES

A balsam flats vegetative community has been identified on the unit and has been classified as a significant ecological community by the New York Natural Heritage Program (Table 2; NYNHP; Nick Conrad, personal communication). The ecological community description provided below is based on a 1997 field survey of the BRW by NYNHP (Hunt 1997) and Reschke (1990).

Unit-specific Description

A moist gently sloping spruce-fir forest forming much of a large valley between Blue Ridge and Wakely Mountain. This valley forms the headwaters of several streams, including Browns Brook, Lost Brook, Bear Brook, East Inlet, and Sumner Stream. There are numerous small wetland patches bordering the streams or imbedded in the forest. A very large community, most of which is undisturbed and putatively virgin old growth in a very large intact old growth landscape (Hunt 1997).

Community Description

A conifer forest that occurs on moist, well-drained soils of low flats adjoining swamps, gentle low ridges, and knolls within swamps. The dominant tree is balsam fir (*Abies balsamea*), which occurs either in pure stands or in mixed stands with red spruce (*Picea rubens*) or black spruce (*Picea mariana*), and possibly a few yellow birch (*Betula allegheniensis*), red maple (*Acer rubrum*), and black cherry (*Prunus serotina*). The shrub layer is patchy and sparse; characteristic tall shrubs include hobblebush (*Viburnum*

Table 2. Significant Ecological Communities in the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Community	State Distribution	Acreage	Elevation (Feet above Sea Level)	Element Occurrence Rank	Global Rank	State Rank	Survey Date
Balsam flats	Adirondacks Ecozone	3,395	Min: 1,906 Max: 2,560 Av: 2,233	A[1]	G4[2]	S2S3[3]	7/3/97

[1]*Outstanding or pristine.*
[2] *Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.*
[3] *S2 = Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.*
S3 = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.

lantanoides), wild raisin (*Viburnum cassinoides*), and mountain ash (*Sorbus americana*). The ground layer is typically a dense carpet of feather mosses, especially *Hylocomium splendens*. Characteristic herbs include wood sorrel (*Oxalis acetosella*), bunchberry (*Cornus canadensis*), creeping snowberry (*Gaultheria hispidula*), bluebeads (*Clintonia borealis*), wild sarsaparilla (*Aralia nudicaulis*), dewdrop (*Dalibarda repens*), spinulose

wood fern (*Dryopteris carthusiana*), and lady fern (*Athyrium asplenioides*). More data on this community are needed (Reschke 1990).

INVASIVE PLANTS

General Overview

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 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, whose success depends upon 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. The Department shares with other agencies and organizations an interest in minimizing 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 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 New York State. 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.

Terrestrial Invasive Plant Inventory

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 New York State Department of Transportation (DOT) highway rights-of-way. In 1999 the Invasive Plant Project was expanded to include surveying back roads and the "backcountry" (undeveloped areas away from roads) to determine 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 APIPP.

Assessments from these initial ED/RR surveys determined that four 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 at present many of these species are not designated priority species by APIPP, they may become established within or in proximity to Forest Preserve management units and require resources to manage, monitor and restore infested sites.

Infestations located within and in proximity to a Forest Preserve management unit may expand and spread to uninfested areas and threaten natural resources within the 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 ED/RR and ongoing management efforts.

Terrestrial Invasive Plant Locations

No terrestrial invasive plants have been identified within the BRW or WMPA. Appendix 20, Map 3 shows the documented locations of terrestrial invasive plants in the vicinity. There are two garlic mustard infestations adjacent to the BRW. At 4851607 N 532648 E, garlic mustard infestations occur throughout the Golden Beach Campground. Significant and mono-specific nursery infestations of garlic mustard are documented at camp sites: 23, 24, 26, 28, 30, 32, 41, 43, 45, 47, 49, 51, 52, 53, 54, 55, 56, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 74, 75, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 87, 89, 90, 91, 92, 93, 94, 95, 102, 104, 106, 108, 109, 111, 116, 117, 118, 124, 134, 135, 136, 137, 141, 147, 149, 152, 153, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 179, 180, 183, 185, 187, 192, 193, 195, 196, 198, 199, 200, 201 and 207. Numerous on-site spoils areas are also heavily infested. Numerous, interconnected social trails are

also heavily infested with satellite infestations spreading out from these trails into forest understory.

At 4854148 N 549462 E, garlic mustard infestations occur at the Lake Durant Campground. Moderate infestations are documented at campsites 2, 30, 35, 36, 58. The Northville-Lake Placid Trail south of the campground boundary has not been inventoried for terrestrial invasive species.

There is one Japanese knotweed infestation adjacent to the BRW. At State Route 28 reference marker 28-2209-1267, Japanese knotweed infestations occur at the intersection of Durant Road and State Route 28. The infestations were initially contained within the DOT right-of-way and on private land abutting the north fringe of Durant Road. Newer stands of Japanese knotweed have expanded and are now documented beyond the southern border of the Durant Road right-of-way, encroaching associated wetlands on the north shoreline of Lake Durant. These aggressive, interspersed stands are approximately 100 feet from near-shore wetlands and the affected area is approximately 12,000 square feet. In addition, there are 13 Japanese knotweed, one purple loosestrife and two common reed infestations within DOT rights-of-way in proximity to the BRW.

Aquatic Invasive Plant Inventory

A variety of monitoring programs collect information directly or indirectly about the distribution of aquatic invasive plants in the Adirondack Park including the Department, Darrin Fresh Water Institute, Paul Smiths College Watershed Institute, lake associations and lake managers. In 2001 the 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 starry stonewort (*Nitellopsis obtuse*), hydrilla (*Hydrilla verticillata*), water hyacinth (*Eichhornia crassipes*), and Brazilian elodea (*Egeria densa*).

Infestations located within and in proximity to a Forest Preserve management unit may expand and spread to uninfested areas and threaten natural resources within the 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 ED/RR and ongoing management efforts.

Aquatic invasive plants are primarily spread by human activities. Therefore, lakes with public access, and those connected to lakes with public access, are at higher risk of invasion. All aquatic invasive species pose a risk of spreading via transport mechanisms which may include seaplanes, motorized and non-motorized watercraft (canoes, kayaks, jet skies, motor boats etc.) and associated gear and accessories. Documentation of aquatic invasive plant distributions in the Park is limited by the number of lakes and ponds that have been surveyed and the frequency of monitoring. In some cases, only a portion of the water's shoreline has been surveyed. In other cases, a single specimen may have been identified without documentation as to its location within the waterbody. It follows that a negative survey result indicates only that an invasive plant has not been detected, not that it does not exist.

Aquatic Invasive Plant Locations

Appendix 20, Map 3 shows that to date no aquatic invasive plants have been documented in or near the BRW and WMPA. The unit has few easily accessible lakes and ponds. APIPP volunteers monitored Sprague Pond in 2002 and identified no aquatic invasive plant infestations. They did not detect any aquatic invasive plants when they monitored several waters on the periphery of the BRW. The APIPP Park-wide volunteer monitoring program aims to maintain a long-term monitoring program on these and other lakes.

Wildlife

The dominant forest communities in the unit include spruce-fir (43.2%) and northern mixed hardwoods (21.5%); therefore, wildlife communities reflect those species commonly associated with boreal and mixed hardwood/softwood habitats. Terrestrial fauna are represented by a variety of bird, mammal, and invertebrate species. Amphibians and reptiles also occur on the unit, although species diversity is relatively low as compared with other vertebrates. The distribution and abundance of wildlife species on the unit is determined by physical (e.g., elevation, topography, climate), biological (e.g., forest composition, structure, and disturbance regimes, available habitat, population dynamics, species' habitat requirements), and social factors (e.g., land use). It is important to note that wildlife populations occurring on the unit do not exist in isolation from other forest preserve units or private lands. The physical, biological, and social factors that exist on these other lands can and do influence the abundance and distribution of wildlife species on the BRW and WMPA.

With the exception of a New York Natural Heritage Program (NYNHP) survey (Hunt 1997), comprehensive field inventories of wildlife species have not focused specifically on the BRW and WMPA. Statewide wildlife survey efforts conducted by the Department have included two Breeding Bird Atlas projects (1980-1985 and 2000-present) and the New York State Amphibian and Reptile Atlas Project (1990-1999). Critical wildlife habitats, specifically deer wintering areas, have also been identified by the Department

Bureau of Wildlife within the unit (see Critical Habitat section). Additionally, the Bureau of Wildlife collects harvest data on a number of game species (those that are hunted or trapped). Harvest data is not collected specific to Forest Preserve units, but rather on a town, county, and wildlife management unit (WMU) basis. Harvest data can provide some indication of wildlife distribution and abundance and is sometimes the only source of data on mammals.

The unit is largely covered by late-successional stage forests, with limited areas of early successional habitat. The character of the unit's vegetation has a significant effect in determining the occurrence and abundance of wildlife species. While some species prefer old growth forests, many others occur in lower densities on Forest Preserve lands than they do on private lands characterized by a greater variety of habitat types. Natural forest disturbances including windstorms, ice storms, tree disease and insect outbreaks, fire, and beaver activity influence forest structure and wildlife habitats by creating patches of earlier successional stages within a larger matrix of mature forest. These natural disturbances create important habitat for a variety of species that depend on early succession vegetation communities and the edges created between these communities and the surrounding forest. However, these areas are usually limited in size. Private lands adjacent to public lands may provide some habitat for species that prefer early successional habitats, depending on the silvicultural practices conducted.

AMPHIBIANS AND REPTILES

The New York State Amphibian and Reptile Atlas Project (1990-1999) confirmed the presence of 19 species of reptiles and amphibians in USGS quadrangles within, or partially within BRW and WMPA. It is important to note that quadrangles (the sample unit) overlap and extend beyond the land boundary of the BRW and WMPA. Therefore, recorded species do not necessarily reflect what was found on the BRW and WMPA, but on the quadrangles. Some species may have been found on private lands adjacent to the State lands. However, these data should provide a good indication of the species found throughout the BRW and WMPA. These included two species of turtles, two species of snakes, nine species of frogs and toads, and six species of salamanders and newts (Table 3). These species are either unprotected at both the State and Federal level or are classified as a protected game species which may be hunted only during their respective open seasons. Of the 19 confirmed species, none were classified as endangered, threatened, or special concern.

Habitat Associations

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).

Table 3. Amphibian and Reptile Species Recorded in USGS Quadrangles Within, or Partially Within, the Blue Ridge Wilderness and Wakely Mountain Primitive Area During the New York State Amphibian and Reptile Atlas Project, 1990-1999

Common Name	Scientific Name
Bullfrog	*Rana catesbeiana*
Common Garter Snake	*Thamnophis sirtalis*
Common Snapping Turtle	*Chelydra s. serpentina*
Eastern American Toad	*Bufo a. americanus*
Gray Treefrog	*Hyla versicolor*
Green Frog	*Rana clamitans melanota*
Mink Frog	*Rana septentrionalis*
Northern Dusky Salamander	*Desmognathus fuscus*
Northern Leopard Frog	*Rana pipiens*
Northern Redback Salamander	*Plethodon cinereus*
Northern Redbelly Snake	*Storeria o. occiptomaculata*
Northern Spring Peeper	*Pseudacris c. crucifer*
Northern Spring Salamander	*Gyrinophilus p. porphyriticus*
Northern Two-lined Salamander	*Eurycea bislineata*
Painted Turtle	*Chrysemys picta*
Pickerel Frog	*Rana palustris*
Red-spotted Newt	*Notophthalmus v. viridescens*
Spotted Salamander	*Ambystoma maculatum*
Wood Frog	*Rana sylvatica*

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 frogs 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).

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).

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).

Common Garter Snake (*Thamnophis sirtalis*): Common 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 Redbelly Snake (*Storeria occipitomaculata*): Although the northern redbelly 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).

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.

BIRDS

The avian community varies seasonally. Some species remain within the area year round, but the majority of species utilize the area during the breeding season and for migration. The first Breeding Bird Atlas (BBA) project conducted during 1980-1985 (Andrle and Carroll 1988) and four years of preliminary data from the Breeding Bird Atlas 2000

Project (2000-2003) documented 132 and 118 species, respectively, in atlas blocks within or partially within the BRW and WMPA (Appendix 8). It is important to note that atlas blocks overlap and extend beyond the land boundary of the BRW and WMPA. Therefore, these data do not necessarily reflect what is found on the BRW and WMPA, but on the atlas blocks. It is probable that some species determined to be present by BBA where found only on private lands adjacent to the State lands. Still the BBA data should provide a good indication of the species found throughout the BRW and WMPA.

To date, 109 species common to both atlas projects have been documented, representing 83 percent and 92 percent of the total species recorded during 1980-1985 and 2000-2003, respectively. The first atlas project documented 23 species not found during BBA 2000, and nine species have been documented during BBA 2000 that were not found during the first survey effort. However, because BBA 2000 has not been completed, these comparisons should be considered preliminary. Additionally, these comparisons should be used as a tool for further study and monitoring of bird populations and not as a definitive statement on bird population changes.

Birds Associated with Boreal Forest

The BRW and WMPA are comprised of a variety of habitats, predominately maturing boreal and mixed softwood/hardwood forest. Birds associated with lowland boreal forest and high elevation boreal forest occur on the unit. Lowland boreal forest within the unit consists of balsam flats (see Significant Ecological Communities section above). Additionally, there are approximately 5,240 acres (11 percent of the unit) of high elevation boreal forest (equal to or greater than 2,800 feet in elevation) in the unit. High elevation spruce-fir forest is especially important as breeding habitat for Bicknell's thrush, a special concern species in New York. Atwood et al. (1996) reported that this species regularly breeds only at elevations between approximately 2,900 feet and 4,700 feet in New York. Within the unit, two areas comprise the majority of this high elevation boreal forest: Blue Ridge and the range including Wakely, Metcalf and Bradley Mountains. Bicknell's thrush is a confirmed breeder on Wakely Mountain.

In an effort designed to protect birds associated with high elevation boreal forest and their habitats, 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) in November 2001. The New York State Bird Conservation Area program was established in September 1997, under §11-2001 of the Environmental Conservation Law. The program is designed to safeguard and enhance bird populations and their habitats on selected State lands and waters.

Of 27 bird species associated with boreal forest that occur in New York (Tim Post, NYSDEC, personal communication), 23 (85 percent) have been documented in BBA survey blocks within or partially within the BRW and WMPA (Table 4).

Table 4. Bird Species Associated with Boreal Forest as Recorded by the New York State Breeding Bird Atlas Projects (1980-1985 and 2000-2003) Occurring in Atlas Blocks Within, or Partially Within the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Lowland Boreal Forest Species

Common Name	Scientific Name
Black-backed Woodpecker	*Picoides acticus*
Olive-sided Flycatcher	*Contopus cooperi*
Boreal Chickadee	*Poecile hudsonicus*
Ruby-crowned Kinglet	*Regulus calendula*
Cape May Warbler	*Dendroica tigrina*
Bay-breasted Warbler	*Dendroica castanea*
Rusty Blackbird	*Euphagus carolinus*
White-throated Sparrow	*Zonotrichia albicollis*
Yellow-bellied Flycatcher	*Empidonax flaviventris*
Gray Jay	*Persisoreus canadensis*
Lincoln's Sparrow	*Melospiza lincolnii*
Pine Siskin	*Carduelis pinus*
White-winged Crossbill	*Loxia leucoptera*
Red Crossbill	*Loxia curvirostra*

High Elevation Boreal Forest Species

Common Name	Scientific Name
Bicknell's Thrush	*Catharus bicknelli*
Blackpoll Warbler	*Dendroica striata*
Winter Wren	*Troglodytes troglodytes*
Swainson's Thrush	*Catharus ustulatus*

Species Commonly Associated with Boreal Forest

Common Name	Scientific Name
Evening Grosbeak	*Coccothraustes vespertinus*
Blackburnian Warbler	*Dendroica fusca*
Magnolia Warbler	*Dendroica magnolia*

Table 4. Bird Species Associated with Boreal Forest as Recorded by the New York State Breeding Bird Atlas Projects (1980-1985 and 2000-2003) Occurring in Atlas Blocks Within, or Partially Within the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Northern Parula	*Parula americana*
Tennessee Warbler	*Vermivora peregrina*

Habitat Associations

In additional to boreal and mixed-boreal forests, 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, pied-billed grebe, 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, Lincoln sparrow, Nashville warbler, chestnut-sided warbler, brown thrasher, blue-winged warbler, yellow warbler, common yellowthroat, indigo bunting, eastern towhee, 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. Habitat for these species are and will be very limited within the BRW and WMPA.

Birds that prefer forest habitat are numerous, including many neotropical migrants. These species have adapted to habitats with varying specific conditions. Some, such as the northern goshawk, like large blocks of contiguous forest, while others prefer blocks of forest with adjacent openings. Many prefer areas of forest with relatively thick shrub layers. The forest currently is maturing, and eventually will become old growth forest dominated by large trees.

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, yellow-bellied sapsucker, black-capped chickadee, blue jay, downy woodpecker, brown creeper, wood thrush, black-throated blue warbler, pileated woodpecker, and black-and-white warbler. The golden-crowned kinglet, purple finch, pine sisken, red crossbill, white-winged crossbill and black-throated green warbler are additional species found in the coniferous forest that prefer this habitat. Birds of prey common to the area include the barred owl, great horned owl, eastern screech-owl, northern goshawk, red-tailed hawk, 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 and will provide hunting opportunities.

MAMMALS

Large and Medium-sized Mammals

Large and medium-sized mammals known to occur in the Central Adirondacks are also believed to be common inhabitants of the BRW and WMPA and include the white-tailed deer, moose, black bear, coyote, raccoon, red fox, gray fox, bobcat, fisher, American marten, river otter, mink, striped skunk, long-tailed weasel, short-tailed weasel, beaver, muskrat, porcupine, and snowshoe hare (Saunders, 1988). Of these species, white-tailed deer, black bear, coyote, raccoon, red fox, gray fox, long-tailed weasel, short-tailed weasel, bobcat, and snowshoe hare can be hunted. Additionally, these species (with the exception of white-tailed deer, black bear, and snowshoe hare) along with fisher, American marten, mink, muskrat, beaver, and river otter can be trapped. Hunting and trapping activities are highly regulated by the Department, and the Bureau of Wildlife collects annual harvest data on many of these species.

Important big game species within the area include the white-tailed deer and black bear. Generally, white-tailed deer can be found throughout the BRW and WMPA. From April to November, deer are distributed generally on their summer range. When snow accumulates to depths of 20 inches or more, deer travel to their traditional wintering areas. This winter range is characteristically composed of lowland spruce-fir, cedar or hemlock forests, and to a lesser degree, a combination of mixed deciduous and coniferous cover types. Often found at lower elevations along water courses, this habitat provides deer with protective cover from adverse weather and easier mobility in deep snows.

Black bears are essentially solitary animals and tend to be dispersed throughout the unit. Occasionally, individuals congregate around waste transfer stations or during the mating season.

Moose entered the state on a continuous basis in 1980, after having been absent since the 1860s. Currently the moose population in New York State is estimated to be approximately 150 to 200 animals (Al Hicks, NYSDEC, personal communication). In the northeastern United States, moose use seasonal habitats within boreal and mixed coniferous and 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 dormant shrubs provide the highest available biomass of woody browse. In late winter when browse quantity and quality are lowest, moose will use areas such as closed-canopy conifer stands in boreal forest that represent the best cover available within the range. 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.

Chronic Wasting Disease (CWD) in White-tailed Deer

Chronic Wasting Disease (CWD) is a rare, fatal, neurological disease found in members of the deer family (cervids). It is a transmissible disease that slowly attacks the brain of infected deer and elk, causing the animals to progressively become emaciated, display abnormal behavior, and invariably results in the death of the infected animal. Chronic Wasting Disease has been known to occur in wild deer and elk in the western U.S. for decades and its discovery in wild deer in Wisconsin in 2002 generated unprecedented attention from wildlife managers, hunters, and others interested in deer. Chronic Wasting Disease poses a significant threat to the deer and elk of North America and, if unchecked, could dramatically alter the future management of wild deer and elk. However, there is no evidence that CWD is linked to disease in humans or domestic livestock other than deer and elk.

In 2005, the New York State Department of Environmental Conservation (NYSDEC) received confirmation of CWD from two captive white-tailed deer herds in Oneida County and subsequently detected the disease in two wild deer from this area. Until recently, New York was the only state in the northeast with a confirmed CWD case in wild deer. However, CWD was recently detected in wild deer in West Virginia.

The NYSDEC has established a containment area around the CWD-positive samples and will continue to monitor the wild deer herd in New York State. More information on CWD, New York's response to this disease, the latest results from ongoing sampling efforts, and current CWD regulations are available on the NYSDEC website: http://www.dec.state.ny.us/website/dfwmr/wildlife/deer/currentcwd.html

Small Mammals

The variety of 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 4,400 feet, where the southern bog lemming occurs. Most species are found in coniferous, deciduous or mixed-forest habitats with damp soils, organic muck, or soils with damp leaf mold. However some species, such as the hairy-tailed mole, like dry to moist sandy loam soils. Others, like the 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 (long-tailed shrew), talus slides and rocky outcrops (rock vole), grassy meadows (meadow vole, meadow jumping mouse), and riparian habitats (water shrew). It is likely that many, if not most, of the small mammal species listed in Table 5 inhabit the BRW and WMPA (data based on museum specimens; Saunders, 1988). 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, 1988). All listed species are known to occur within the Adirondack Park.

Table 5. Small Mammal Species Recorded Within the Adirondack Park, and 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 pennsylvanicus*	31
Yellownose vole	*Microtus chrotorrhinus*	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

ENDANGERED SPECIES, THREATENED SPECIES, AND SPECIES OF SPECIAL CONCERN

New York has classified species at risk into three categories, endangered, threatened, and species of special concern (6 NYCRR §182). The following section indicates the protective status of some vertebrates that may be in the unit (Table 6).

Endangered: Any species that is either native and in imminent danger of extirpation or extinction in New York; or is listed as endangered by the US Department of Interior. Except for seasonal migrants, there are no known reports of species recognized as endangered currently residing in the unit.

Table 6. Endangered, Threatened, and Special Concern Bird Species Documented in Atlas Blocks Within, or Partially Within, the Blue Ridge Wilderness and Wakely Mountain Primitive Area During the 1980-1985 and 2000-2003[1] Breeding Bird Atlas Projects

Common Name	Scientific Name	Breeding Bird Atlas Project	
		1980-1985	2000-2003
Endangered			
Golden Eagle	*Aquila chrysaetos*	✓	
Threatened			
Northern Harrier	*Circus cyaneus*	✓	
Bald Eagle	*Haliaeetus leucocephalus*		✓
Least Bittern	*Ixobrychus exilis*		✓
Special Concern			
American Bittern	*Botaurus lentiginosus*	✓	✓
Bicknell's Thrush	*Catharus bicknelli*	✓	✓
Common Loon	*Gavia immer*	✓	✓
Cooper's Hawk	*Accipiter cooperii*	✓	✓
Osprey	*Pandion haliaetus*	✓	✓
Sharp-shinned Hawk	*Accipiter striatus*	✓	✓
Northern Goshawk	*Accipiter gentilis*	✓	
Common Nighthawk	*Chordeiles minor*	✓	
Red-shouldered Hawk	*Buteo lineatus*	✓	
Veery	*Catharus fuscescens*		✓

[1]*Preliminary data*

Threatened: Any species that is either native and likely to become endangered within the foreseeable future in New York or is listed as threatened by the US Department of the Interior. Bald eagle use of the area is currently limited to transient use.

Special Concern: Native species not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, they receive no additional legal protection under the Environmental Conservation Law; but, they could become endangered or threatened in the future and should be closely monitored.

Habitat Associations

The following list briefly summarizes the habitat requirements of endangered, threatened, and special concern species occurring on the unit. In addition, the spruce grouse is included because of potential habitat that has been identified in the unit and opportunities for targeted surveys and population augmentation in the future (see Proposed Management Actions, Wildlife).

Endangered Species

Spruce Grouse (*Falcipennis canadensis*): In the Adirondacks, the rare spruce grouse prefers the boreal acid bog forest where it selects immature or uneven-aged spruce-fir habitat (Andrle 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 (Andrle and Carroll, 1988).

Most of the potential spruce grouse habitat identified within this region is located along the periphery and outside the boundaries of BRW and WMPA, primarily to the north and east (Figure 9; Adirondack Park Agency, 2004). Other Forest Preserve units adjacent to the BRW and WMPA, where potential spruce grouse habitat was identified, include the Sargent Ponds Wild Forest to the north, the Moose River Plains Wild Forest to the west, the Blue Mountain Wild Forest to the northeast and the Jessup River Wild Forest to the southeast. Additionally, potential habitat was identified on private lands between the west end of Utowana Lake and Blue Mountain Lake.

Golden Eagle (*Aquila chrysaetos*): The golden eagle prefers wild areas with open and edge habitat where prey is abundant. Most nests in New York were placed on cliff ledges overhung by a protective tree or rock. Golden eagles also nest in trees. One nest in New York was located 90 feet above the ground in a white pine (*Pinus strobus*). All former eyries in New York were located at elevations between 1,500 and 2,600 feet (Andrle and Carroll, 1988).

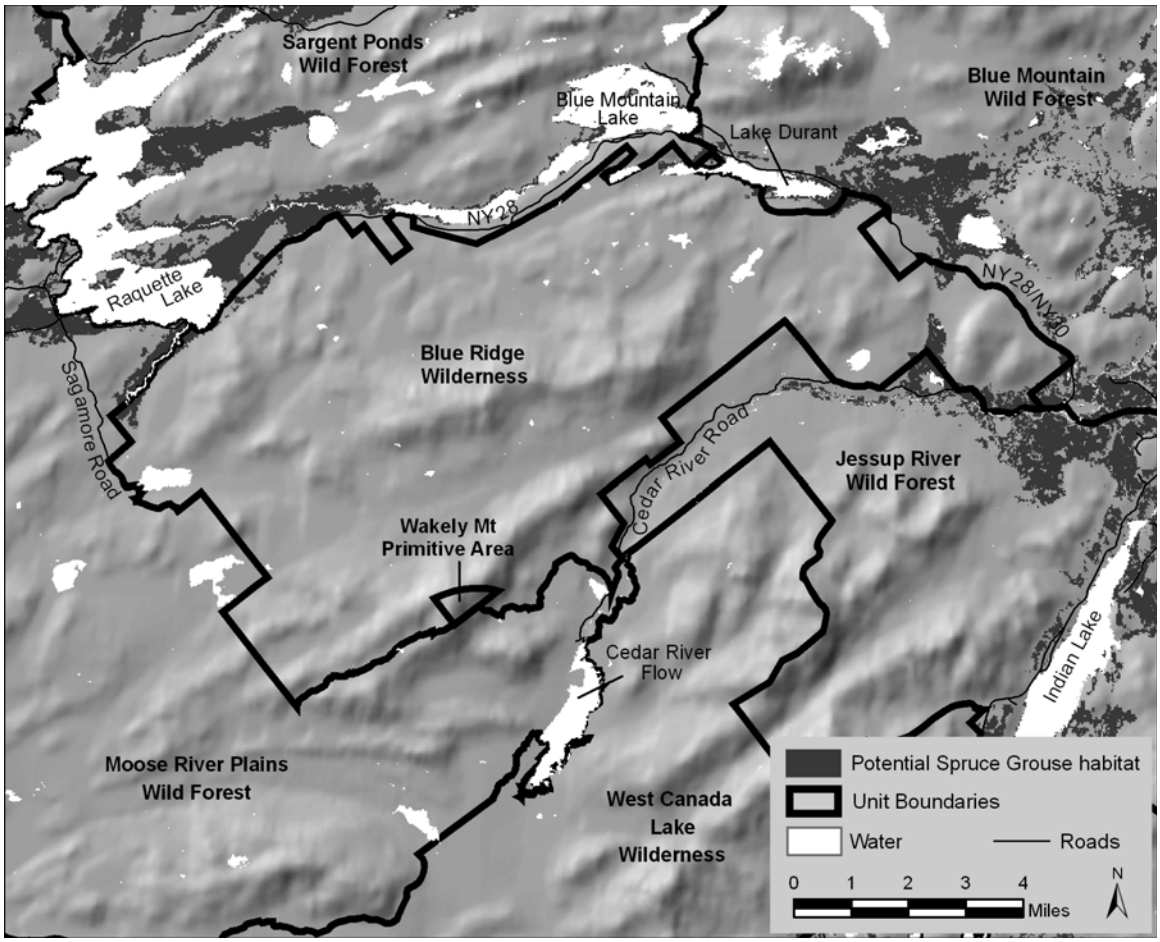

Figure 9. Potential Spruce Grouse Habitat Within the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Threatened Species

Northern Harrier (*Circus cyaneus*): The northern harrier is a bird of open country and is associated with 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:* Andrle 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 (Andrle and Carroll, 1988).

Bald Eagle (*Haliaeetus leucocephalus*): Bald eagles breed in forested and open areas that are usually near large bodies of water with an abundance of fish. Bald eagles construct their nests in large living trees, approximately 50 to 60 feet off the ground and occasionally on cliffs. Tree species used for nesting is not as important as structural characteristics, such as size and shape, and distance to other nesting eagles. Nesting sites with an unobstructed view are preferred. Pilot trees (access points to and from the nest) and perch trees are important components of bald eagle habitat. Bald eagles are sensitive to human disturbance.

Least Bittern (*Ixobrychus exilis*): Emergent wetlands such as cattail marshes are the preferred habitat for least bitterns in upstate New York. Nests woven of cattails and various other herbaceous species are usually built by the male (Andrle and Carroll, 1988) and placed from one to four feet above water level (Bull, 1974).

Species of Special Concern

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 four 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 (Erlich et al., 1988).

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 greater than 2,800 feet. The species is most common on the highest ridges of the Adirondacks, preferring young or stunted dense stands of balsam fir up to nine feet in height. Here they lay their eggs above the ground in the dense conifer thickets.

Common Loon (*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. In an extensive project undertaken to determine the status of the common loon in New York, Department staff surveyed 557 lakes in the northern part of the state during 1984 and 1985. In 1985 four nonbreeding adults were observed on Sagamore Lake and two on Sprague Pond. The Adirondack Cooperative Loon Program (ACLP) has been conducting annual loon censuses on lakes and ponds in and around the Adirondack Park since 2001. The 2001 and 2003 efforts did not include waters within or adjacent to the BRW and WMPA. In 2002 two adults and one chick were observed on Lake Durant, and one adult was seen on Sagamore Lake. Though the 2004 results have not been finalized, it was reported that breeding loons were observed on Sprague Pond and Lake Durant, and there may have been a nest on Sagamore Lake (Nina Schoch, personal communication). Members of the Susquehanna Chapter of the Adirondack Mountain Club reported seeing an adult loon and two chicks on Sprague Pond in August, 2005. According to the Atlas, loons were confirmed breeders in some of the Atlas blocks that overlap the majority of the BRW and WMPA.

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 hawks 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.

Osprey (*Pandion haliates*): Osprey breed near large bodies of water, including rivers and lakes, that support abundant fish populations. Osprey typically construct their nests 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.

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 percent of the nests found in hemlocks (Bull, 1974).

Northern Goshawk (*Accipiter gentilis*): 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 to 40 feet off the ground in the crotch of a tree (Andrle and Carroll, 1988).

Common Nighthawk (*Chordeiles minor*): Two distinct nesting habitats used by common nighthawks are bare flat rocks, and bare ground in open fields and pastures. Since the mid- to late-1800s, nighthawks also have nested 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).

Red-shouldered Hawk (*Buteo lineatus*): Red -shouldered hawks breed in moist hardwood forests, 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.

Veery (*Catharus fuscescens*): The veery prefers moist to wet woodlands and inhabits forests having thick undergrowth. It is most common in low, wet deciduous and coniferous forests. In mature forests the veery occupies north-facing slopes or wet depressions where the microclimate is cooler. The veery usually nests on the ground, at the base of shrubs, roots, fallen branches or tree sprouts (Andrle and Carroll, 1988).

EXTIRPATED AND FORMERLY EXTIRPATED SPECIES

The moose, elk, wolf, eastern cougar, Canada lynx, bald eagle, golden eagle, and peregrine falcon all inhabited the Adirondacks prior to European settlement. All of these species were extirpated from the Adirondacks, mostly as a result of habitat destruction during the nineteenth century. Unregulated harvest also lead to the decline of some species, such as moose and elk. More recently some birds fell victim to the widespread use of DDT.

Projects to re-establish the peregrine falcon, bald eagle, and Canada lynx have been implemented. A total of 83 Canada lynx were released into the Adirondack Park from 1989 to 1991 by the SUNY College of Environmental Science and Forestry as part of their Adirondack Wildlife Program. Lynx dispersed widely from the release area and mortality was high, especially mortality caused by vehicle-animal collisions. It is generally accepted that the lynx restoration effort was not successful and that there are no lynx from the initial releases or through natural reproduction of released animals remaining in the Adirondacks. Lynx are legally protected as a game species with no open season as well as being listed as threatened on both the Federal and State level.

Efforts to reintroduce the peregrine falcon and the bald eagle through "hacking" programs began in 1981 and 1983, respectively. These projects have been remarkably successful within New York Bald eagles are becoming much more common, and peregrines are recovering. Both species are now found in portions of the Adirondacks, although they are not believed to be common residents within the BRW and WMPA. Golden eagles are generally considered to have always been rare breeders within the state.

The wolf and eastern cougar are still generally considered to be extirpated form New York State. Periodic sightings of cougars are reported from the Adirondacks, but these are believed to be released captive individuals. The timber wolves occasionally reported are generally considered to be misidentified coyotes, although there is some evidence to suggest that the eastern coyote found in the Adirondacks may be a hybrid between the red wolf and coyote.

INVASIVE WILDLIFE

As with plant species, these organisms do not occur naturally in New York State. While some species go relatively unnoticed (e.g., spiny water flea), other introductions such as the zebra mussel have caused great concern. There are no confirmed reports of zebra mussels in unit waters. Wild populations of domestic canines and felines can also have an impact on native deer, rodents and birds.

OTHER FAUNA

Other members of the animal kingdom occur within the unit. Insects are the most notable and abundant form of animal life. Some species can cause human health concerns (e.g.,

Giardia, swimmer's itch) or are generally considered a nuisance (e.g, black flies, mosquitoes) to individuals that recreate in the area.

Critical Habitat

DEER WINTERING AREAS

The maintenance and protection of deer wintering areas, or deer yards, are important in maintaining deer populations in the northern portions of their range. These areas provide deer with relief from the energetic demands of deep snow and cold temperatures at a time when limited fat reserves are being used to offset the reduced energy intake from nutritionally poor winter browse. Previous researchers have demonstrated that deer consistently choose wintering areas which provide relief from environmental extremes over areas that may provide more abundant forage (Severinghaus 1953, Verme 1965). These observations are consistent with the facts that the nutritional value of winter browse is poor due to low digestibility and that deer can expend more energy obtaining browse than the energy gained by its consumption (Mautz 1978).

Severinghaus (1953) outlined several habitat components of deer yards, including topography and forest cover types dominated by conifers. 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 during severe winter weather conditions. Travel corridors are dense but narrow components which allow access to food resources, mainly hardwood browse, in milder conditions. Use of wintering areas by deer can vary over time depending on winter severity and deer population density. Although Severinghaus (1953) reported that some Adirondack deer yards have been used since the early 1800's, recent research suggests that the location of some current deer yards may overlap very little or not at all with their historical counterparts mapped by the Department in the late 1960s and early 1970s.

Hurst (2004) surveyed 16 deer yards in the central and eastern Adirondacks during the winters of 2003 and 2004 and found that overlap between yard boundaries of areas used by deer during these years (mean = 65.96%; range = 31.5-88.0%) was significantly greater than overlap between current and historical deer yards (mean = 23.59%; range = 0-58.8%). Locations of nine of the 16 recent yards were found to have shifted, overlapping less than 20 percent with their historical position. Of the nine shifted yards, eight moved toward residential areas by an average of 0.58 kilometers (range = 0.13-1.33 km), and one yard contracted around a known feeding site. (It is illegal to feed deer under 6 NYCRR Part 189 adopted on July 30, 2003.)

Hurst (2004) also found that recent deer yards were significantly smaller (average = 1,155 ha) than historical deer yards (average = 2,050 ha). Winters were comparable during the various study periods, so the smaller yard size may have been partly due to lower population density or because of increased use of residential areas. Additionally, differences in methodology (i.e., radiotelemetry vs. ground and aerial surveys) used to delineate deer yards could have influenced calculations of yard size and overlap.

HISTORICAL DEER WINTERING AREAS AND POTENTIAL DEER WINTERING HABITAT WITHIN THE BRW AND WMPA

Seven historical deer wintering areas have been identified within, or partially within, the BRW and WMPA (Figure 10; NYSDEC, unpublished data, ca. 1970). In general, these areas are located along the periphery of the unit. However, the boundary of the deer wintering area east of Raquette Lake extends well outside the unit.

Additionally, a GIS model of potential deer wintering habitat based on forest type, elevation, and slope was recently developed for the Adirondacks (Figure 10; J. Gagnon and S. McNulty, Adirondack Ecological Center, 2004). While this model is a working draft, initial results suggest that, though most of the potential deer wintering habitat within BRW and WMPA is within historical areas, there is a significant amount outside historical area boundaries. Deer selection of wintering areas is not completely understood. However, the identification of areas of potential wintering habitat in the unit, combined with the recent findings of Hurst (2004), suggest that the current sizes and locations of deer yards within the unit may not reflect historical deer yard boundaries delineated by the Department in the 1960s and 1970s. Therefore, planning for the

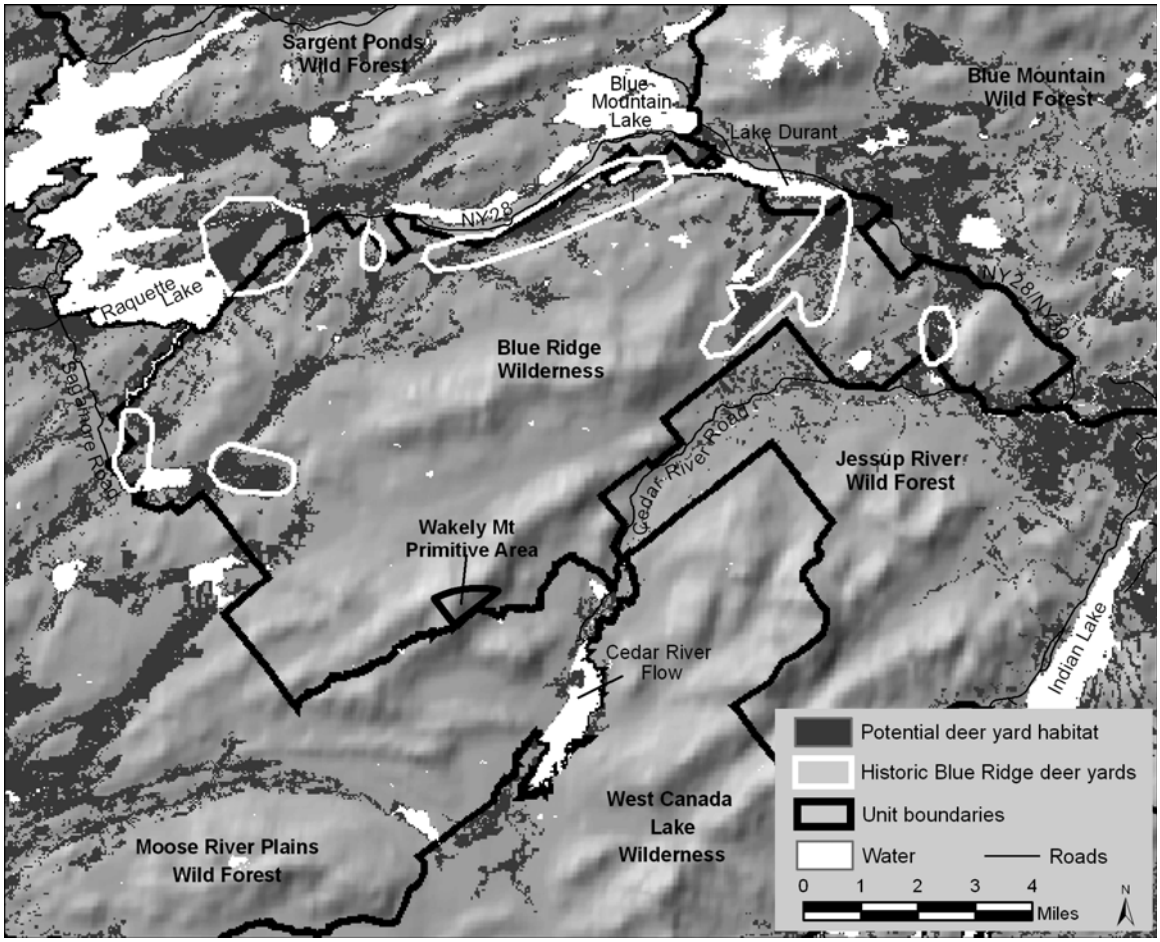

Figure 10. Historical Deer Wintering Areas and Potential Deer Wintering Habitat in the Blue Ridge Wilderness and Wakely Mountain Primitive Area

protection of deer wintering areas relative to recreational activities in the unit should consider the dynamic nature of these areas rather than the static representation of historical boundaries, and seek to update our understanding of wintering areas currently used by deer.

BIRD CONSERVATION AREAS

In September of 1997, §11-2001 of the New York State Environmental Conservation Law 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. The area was nominated because of its diverse species concentration, individual species concentration and its importance to species at risk, in particular Bicknell's thrush, a species of special concern. Included in the designation were lands over 2,800 feet in elevation in the BRW and WMPA, comprising approximately 5,240 acres on Blue Ridge and the range including Wakely, Metcalf and Bradley Mountains (Figure 11). These lands support the

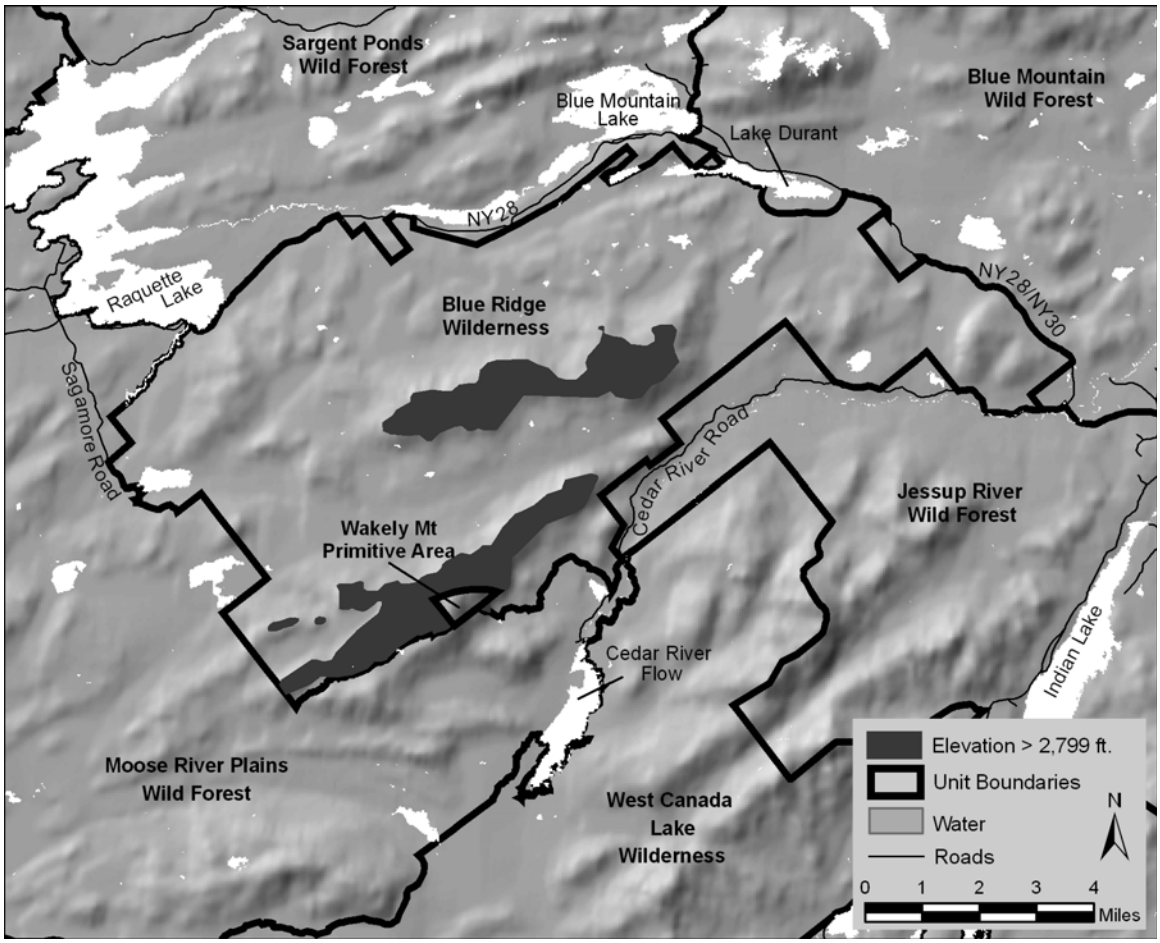

Figure 11. Areas of the Blue Ridge Wilderness and Wakely Mountain Primitive Area Within the Adirondack Subalpine Forest Bird Conservation Area (Areas 2,800 Feet in Elevation and Above)

dense thickets of stunted or young growth of balsam fir and red spruce that are preferred breeding habitat for Bicknell's thrush, which is a confirmed breeder on Wakely Mountain.

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 education and research needs and operational management considerations developed by the Department have been incorporated into the Capacity to Withstand Use and Proposed Management sections of this plan.

Fisheries

Aquatic communities in the Adirondacks are a result of geological and human influences. Prior to human influences relatively simple fish communities were common, particularly in the BRW. Human-caused changes in habitat and introduction of fishes have altered those natural communities. Nonnative fishes, especially golden shiner, now are widespread.

GEOLOGIC FACTORS

George (1980) provides a summary of geological events which influenced the colonization of the Adirondack ecological zone by fishes. The receding of the glaciers about 17,000 B.P. (Before Present) was closely followed by a limited number of cold-tolerant, vagile, lacustrine species. Such species presumably had access to most Adirondack waters. At about 13,000 B.P., 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 into the southern drainages of the Adirondacks. Approximately 1000 years later (12,000 B.P.) a corridor opened which allowed recolonization of several lowland fish species into the northern half of the park via the Raquette, Oswegatchie and Black Rivers.

TOPOGRAPHY

Watershed morphometry probably severely limited the diversity of fishes in the BRW. The BRW includes first and second order streams, and fish diversity is normally low in such headwater portions of watersheds (Hynes 1972). Topography would have made that lack of diversity particularly prominent in the unit. Some unit waters drain via Cedar River to the Hudson River. On the main stem of the Hudson, the Hadley-Luzerne Falls and possibly Spier Falls were barriers at elevations above historic Lake Albany. As Lake Albany drained, two additional barriers, Glens Falls and Bakers Falls, formed. Additional elevation above the Hadley-Luzerne Falls through the Hudson Gorge, and the resulting lotic habitat, would have acted as a strong filter, if not a barrier, to many species. Furthermore, the individual streams draining the BRW have extended stretches of high gradient which include additional barriers to upstream movement of fishes. A gradient of >150 feet per mile is found on most unit streams.

Its headwater nature and the extreme gradients of streams draining the area would have caused low fish diversities in the BRW relative to much of the Adirondacks. Furthermore, the Adirondacks in general had low fish diversities relative to surrounding lowland regions. Consequently, the BRW historically supported particularly low diversities on a region-wide basis. Brook trout have the extreme agility necessary to have naturally colonized the BRW waters and, therefore, were probably particularly abundant in the unit. Also historic brook trout monocultures were most likely to have occurred in such headwater areas.

The high gradient, presence of barriers, and low fertility of many streams within the BRW undoubtedly restricted the distribution of fishes regardless of distribution patterns in lower elevation waters. Severity of climate would act to reduce fish diversity to a few, cold-tolerant species.

HUMAN INFLUENCES

Approximately 300 years ago the influence of human cultures from the Old World initiated a period of rapid manipulation of the natural environment. Commercial activities precipitated substantial impacts to natural ecosystems. Slightly more than 150 years ago, canal construction opened new migration routes for fishes into the peripheral Adirondack areas. Railroads and roads were developed to support the tanning and lumbering industries, and in the late 1800's tourism rapidly expanded (George 1980).

Exploitation of pristine fisheries combined with anthropogenic environmental degradation resulted in the decline of fish populations and stimulated early management efforts consisting primarily of stocking. A variety of nonnative species were distributed into the Adirondack uplands via stocking efforts described by George (1980) as "nearly maniacal". He notes that many species were "...almost endlessly dumped upon the Adirondack upland." Nonnative species were introduced and the ranges of native species, which previously had limited distributions, were extended. The result has been a homogenization of fish communities. Certain native species, notably brook trout and round whitefish, have declined due to the introduction of other fishes. Other natives, brown bullhead and creek chubs, for example, are presently much more abundant than historically, having been spread to many waters where previously absent. Consequently, fish populations in the majority of waters in today's Adirondack wilderness areas have been substantially altered by the activities of mankind. Indeed, of 1,123 Adirondack ecological zone waters surveyed by the Adirondack Lakes Survey Corporation (ALSC) from 1984-1987, 65 percent contained nonnative species (Gallagher and Baker, 1990).

Detailed documentation of historic fish communities is not available. Extensive fishery survey data was first collected in the 1930's, decades after the massive stockings and introductions of the late 1800's. Reviewing work by Mathers from the 1880's and others, George (1980) has summarized what is known. Appendix 6 presents information on species known to be native, native-but-widely-introduced (NBWI), and nonnative. It should be noted that the native classification does not mean those species were found in every water nor even in a majority of waters. For example, of 1,123 waters surveyed by the ALSC which contained fish, white suckers and northern redbelly dace were found in

51 and 19 percent of the lakes, respectively (Gallagher and Baker, 1990). The other species listed as native were less widely distributed. Such distributions, after a century of introductions, demonstrate that "native" does not necessarily imply a historically ubiquitous distribution.

EARLY STOCKING

In the pioneering days of fishery management, volunteers who applied for fish from the State and Federal hatcheries would drive to the hatchery or to train depots with horse and buggy to pick up their allocated cans of fish for stocking. Later on, hatchery employees would employ wagons and teams to haul fish to individual waters or to train depots for more distant delivery (Pfeiffer 1979). In the year 1891, the State purchased its own specially designed wooden railroad car appropriately named “The Adirondack” for the purpose of fish stocking. Initially, the railroad companies furnished free transportation as a public service (Lindsey 1958).

Despite the difficulty of moving live fish, “enthusiastic citizens secured and distributed all sorts of fish for New York’s inland waters” (Fifteenth Annual Report of the Forest, Fish and Game Commission 1909). Brook trout, brown trout, landlocked salmon, rainbow trout, lake trout, lake whitefish, round whitefish, cisco, smelt, walleye, yellow perch, crappie, largemouth bass, smallmouth bass and rock bass were among the species distributed by the State hatcheries. (Fifteenth Annual Report of the Forest, Fish and Game Commission 1909).

Although millions of fish were stocked in waters selected by volunteers, stocking was not done scientifically prior to the 1930's when the first biological surveys established stocking policies (planned annual stocking). Few waters were stocked every year and many waters were stocked only occasionally, because volunteers were not available in all areas of the Adirondacks.

Stocking of fish from the New York Fish and Game Commission was frequently not carried out as planned. The Fifteenth Annual Report of the Forest, Fish and Game Commission, in the year 1909 cited that, “The messenger (railroad) is obliged to take the fish to the next applicant on his route if applicants for fish failed to meet messengers. Often the applicants were not on hand to meet the messenger because certain persons who occupy summer homes in the Adirondacks or some other resorts apply for fish which have to be sent after those persons have returned to their winter homes.” Consequently, fish were sent to the next applicant on the route, who stocked the fish in nearby waters. Fishes may have become established in waters where stocking was not intended by the Forest, Fish and Game Commission because of difficulties in distribution and because unclaimed fish were disposed of along the route.

The New York Forest, Fish and Game Commission, feared that many of our Adirondack lakes had received bass and other fish from the United States Commission of Fisheries (obtained by volunteers via application) “which never should have been placed in trout waters.” In its report to the legislature in the year 1909, the Forest, Fish and Game Commission expressed concern about stocking nonnative fishes via the Federal stocking

program and cited New York law "prohibiting the placing of anything but trout in Adirondack waters. We most certainly desire to continue to produce from the Federal hatcheries every year such allotments as are necessary to keep up the stock in our inland waters, but we respectively submit that this allotment should only be made with the advice of this Commission based on the scientific knowledge of the State Fish Culturist." (Fifteenth Annual Report of the Forest, Fish and Game Commission 1909).

The importance of the loss of trout ponds caused by the widespread establishment of nonnative species was expressed again in the 1932 Biological Survey Report of the Upper Hudson Watershed. "Many Adirondack streams which are still well protected by forested watersheds have suffered severe damage in respect to trout fishing, from unwise introduction of pickerel, bass and perch. This is even more true of lakes and ponds, where the introduction of any of these fishes has often been followed by extermination of the trout fishing."

To help compensate for the loss of trout waters caused largely by the establishment of nonnative species, the Fisheries, Game and Forests Commission established small local fish rearing stations in the Adirondacks in the late 1800's. These facilities produced trout fry for stocking in local waters, but some did not operate for long due to their inability to rear fish. The first trout hatchery to be located close to the Adirondacks was a private operation conducted by General Martin Schenck in the Town of Palatine, Montgomery County in the year 1873. The first State facility was the Fulton Chain Hatchery on Fourth Lake around 1895. A marginal water supply plagued this facility for years and it was abandoned in 1933. (Pfeiffer 1979).

"The Sacandaga Hatchery located near Newton's Corners in Hamilton County was one of the pioneers of the State force. The region around the hatchery certainly is in great need of all the fry that a large hatchery could turn out, as it is in a section far back from a railroad where it is almost death to fish to transport them from the railroad stations." (Report of the Commissioners of Fisheries, Game and Forests 1895). The Sacandaga Hatchery was abandoned in 1904 because it was impossible to raise fingerlings or yearlings at this hatchery as the water supply was so very uncertain during the summer months and because the facility had periodic flooding conditions. "In this respect the location of the plant was most unfortunate, but the section of country accessible from this hatchery abounds in numerous lakes and ponds, some of them the very finest for trout in all the Adirondacks, and as the Forest Preserve Board has recently purchased tracts of land and waters in the Adirondacks." (Report of the Commissioners of Fisheries, Game and Forests 1897).

The wooden "Adirondack" railroad car was replaced by a steel car in 1928. The railroad car's primitive fish cans gave way to oxygen tanks around 1938. Trucks came into fashion for fish delivery around 1921, and the fish car was finally abandoned following World War II. Some of the trucks were mounted with steel oxygen tanks by 1933 (Pfeiffer 1979).

As early as 1932 a few remote Adirondack Ponds were stocked by private planes via contracts with bush pilots. The 1932 Biological Survey of the Upper Hudson Watershed

Report mentioned that "Transportation of trout by airplanes has been done very successfully in the relatively few times it has been tried. Both the major difficulties; the time consumed in transportation and the heavy labor incident upon it [stocking], may be avoided by the use of the airplane." A Department amphibious fixed wing plane assisted in this program by 1947 and was later replaced by helicopter. The importance of aerial stocking, cannot be overestimated since it has greatly expanded the Department's fish planting capabilities (Pfeiffer 1979).

Habitat degradation, widespread introductions of nonnative fishes, and broad dispersal of native fishes which historically had limited distributions have drastically altered the fish fauna of Adirondack waters. George (1980) states: "All of the above events have impacted the fish fauna of the Adirondack Park, often in complex and synergistic ways subverting any effort at simple explanation for changes in a particular population". Due to a paucity in early stocking records, especially for nongame species, it is impossible to determine if a particular species was native in a specific pond, even though they may have been present by the time of the first fisheries survey.

ACID PRECIPITATION

Numerous studies in the last 30 years have shown that acidic deposition has impacted the aquatic resources of the Adirondacks. The ALSC surveyed 1,469 Adirondack waters, 24 percent of which had pH levels less than 5.0 (Kretser et al. 1989). Historic data and water chemistry analysis demonstrates that many of those waters were historically circumneutral and able to support fishes. Although less well studied, streams have also been impacted by acidification (Colquhoun 1984).

Blue Ridge Wilderness waters have had minor impacts from acid precipitation. Of the 18 ponds with chemical survey data (Appendix 4, Table 1b), eight have pH levels at or below 6.0; a point at which ponds are considered to be acid endangered. However, only Potter Pond seems to have become anthropogenically acidified. File notes indicate that Aluminum Pond (R-P315) was stocked historically with brook trout with fair success. But, by the time Aluminum Pond was first studied in 1933, the pond was acidic and fishless, casting some doubts on the earlier fishing reports. Six other unit waters have pH's below 6.0, but these are darkly-stained, naturally acidic bog ponds. Long term monitoring projects have demonstrated that Bear Brook suffers from severe acid flushing events during the spring snow melt. The acid pulse drives away or kills stream fishes and invertebrates (Van Sickle et. al., 1996). Unfortunately, it appears that the insidious effects of acidic deposition on the aquatic ecosystems in BRW waters cannot be managed via addition of neutralizing agents to restore and/or maintain natural water quality characteristics as none of them meet criteria specified in the Department's Final EIS on Liming (1990). None of the unit's waters have been limed in the past and no liming projects are proposed in this plan.

PRESENT DAY FISH DISTRIBUTION (PONDED WATERS)

Sixteen of the 22 ponded waters of the BRW have been surveyed by either the Adirondack Lake Survey Corporation (ALSC) or the Department since 1984. Older data exist for two other unit waters. Thus, there are four unit waters which have never been surveyed. The Department surveyed nine of the 16 waters with recent data in 1992 in a deliberate effort to update inventory data for this UMP. Appendix 4 contains data for the 18 ponded waters of the unit for which information are available, plus a listing of the four waters which are numbered on New York State Biological Survey overlays, but have not been surveyed. There are a dozen or more very small, unnumbered ponds in the unit which are not listed. These smaller waters are likely temporary beaver impoundments. The transitory nature of such ponded waters and their remote location preclude most survey efforts.

Brook trout are the principal native salmonid within the BRW and they exist within nine of the 18 waters with fish species information listed in Appendix 4. A brook trout monoculture (i.e., brook trout are the only fish species in the water) may be present in Lower Mitchell Pond (UH-P646). Most brook trout populations within the unit are maintained through Department stocking. Sagamore Lake has the only significant population of brook trout sustained by natural spawning. However, brook trout were stocked historically in Sagamore Lake by private owners so this population is not regarded as a “heritage” strain. The Department has identified several genetically unique “heritage” strains of brook trout in other Adirondack waters, but no such strains now occur in the BRW. The lack of naturally spawning populations of brook trout in BRW lakes does not reflect historic conditions. Introductions of nonnative and native-but-widely-introduced (NBWI) species along with siltation have seriously impacted brook trout reproduction in BRW lakes. Rock Pond, Sprague Pond, and Slim Pond (UH-P651) are former brook trout waters which are now inhabited primarily by nonnative species. Slim Pond (R-P302) and Wilson Pond have remnant brook trout populations facing serious competitive pressure from abundant populations of nonnative golden shiner. Without active fisheries management brook trout would decline precipitously within the unit.

Lake trout are the only other native salmonid in the BRW. A naturally reproducing population of lake trout occurs in Sagamore Lake. Lakers were stocked historically in this lake, however, so these fish cannot be regarded as an Adirondack 'heritage' strain.

Brown trout are the only nonnative, historically associated, salmonid that is present within the BRW. Brown trout are present in Stephens Pond, Sprague Pond and Slim Pond (R-P302).

The lake whitefish is a nonnative species stocked in many large Adirondack lakes, including Sagamore Lake in the BRW, between 1900-1930. A single lake whitefish was collected in Sagamore Lake in 1984.

Blue Ridge Wilderness waters have remained relatively free from invasion by nonnative warmwater predators/competitors. Sagamore Lake is the only unit water in which

smallmouth bass are present. Rock Pond is now likely inhabited by largemouth bass and tiger musky stocked originally in neighboring Lake Durant. Northern pike, chain pickerel, and walleye are not known to be present in the unit. Yellow perch are perhaps the most severe competitor with brook trout. The BRW contains two waters, Sagamore Lake and Rock Pond, with yellow perch. Surprisingly, brook trout still comprise part of the fish community in Sagamore Lake, probably due to the lake's extensive tributary system. Brook trout migrate from these streams, but yellow perch cannot invade their spawning habitat due to beaver dam blockages. A nonnative cyprinid species, the golden shiner, is found in four of the 11 BRW lakes with fish communities. Golden shiners are also serious competitors with brook trout. Golden shiner have increased in abundance within unit waters in recent times. Prior to 1965, the species occurred in only one water. The brook trout populations in Wilson Pond and Slim Pond (R-P302) have declined due to the high abundance of golden shiner. It is likely that golden shiners have established due to bait pail introductions.

Appendix 6 lists common Adirondack upland fish species as provided by George (1980). These species are classified as either native, nonnative, or native-but-widely-introduced (NBWI). As discussed earlier in this section, not all of the native and NBWI species listed in Appendix 6 are necessarily endemic or common within the BRW. In fact, the white sucker is the only native species that sustains itself in more than 25 percent of the waters that contain fish (5 of 11). The less common longnose sucker is found only in Sagamore Lake. Northern redbelly dace occur in two unit waters. In general, NBWI species are the most common naturally sustained fishes within the BRW: brown bullhead occur in five lakes; pumpkinseed occur in three lakes; and, creek chub occur in three lakes of the 11 with known fish communities.

There are five native species reported in historical fish records for the unit of uncertain modern status: redbreast sunfish, cutlips minnow, common shiner, lake chub and blacknose shiner. Both Sagamore Lake and Rock Pond have not been comprehensively netted in decades, so it is likely that several species mentioned are still present in those waters (see Appendices 4 and 5). Redbreast sunfish and cutlips minnow were captured in a 1959 survey of Rock Pond. A 2002 electrofishing survey of Lake Durant (contiguous with Rock Pond, but not in the BRW) did capture cutlips minnow, so that species, at least, is still likely in Rock Pond. Lake chub were captured in 1933 in Sagamore Lake, but were not captured in more recent efforts. The common shiner has also been captured in Sagamore Lake and Rock Pond.

Of the five species listed above, only the blacknose shiner is uncommon elsewhere in the Adirondacks (Doug Carlson, personal communication). The blacknose shiner was reported in the earliest surveys of Sprague Pond and Grassy Pond, but has not been recaptured in modern surveys. Blacknose shiner are common is some tributaries and ponds along the St. Lawrence River. George (1980) lists them as being found in a dozen Adirondack waters within the Upper Hudson drainage, but is silent on whether the species is native to upland waters. Scott and Crossman (1973) indicate the species is frequently sold as bait in southern Ontario. It is possible that their presence in a small area of the Adirondacks is due to past importation and spread as a baitfish early in the 1900's. Blacknose shiner may have disappeared from Sprague Pond after nonnative

golden shiner became established. The 1971 reclamation of Sprague Pond otherwise likely eliminated them. Blacknose shiner may still be present in Grassy Pond, but were not seen in a 1987 ALSC survey. It should be noted that blacknose shiner are easily confused with a variety of other minnow species. Further research is clearly needed to determine the status of this species in the Adirondacks.

Comprehensive surveys are scheduled in this plan for Sagamore Lake and Rock Pond to update inventory data regarding their fish communities. Grassy Pond is a potential reclamation candidate, but that action is not proposed within the five year scope of this plan. If nonnative species accrue in Grassy Pond to the detriment of native species and a reclamation is scheduled, the pond would be extensively netted to determine the status of blacknose shiner. Blacknose shiner should be reintroduced after the reclamation along with a heritage strain of brook trout, but only if the blacknose shiner can be determined to be a true native Adirondack species and if a suitable regional source for the species can be found.

PRESENT DAY FISH DISTRIBUTION (STREAMS)

Brook trout are likely present in some of the headwater streams of the unit like the inlets to Sagamore Lake and Rock Pond, along with portions of Bear Creek. However, there are no fisheries data to confirm this speculation. All of the streams within the BRW are small and steep with little potential for management. Slimy sculpins and native minnow species are likely present in the larger portions of these streams.

ENDANGERED SPECIES, THREATENED SPECIES, AND SPECIES OF SPECIAL CONCERN

There are no records of any endangered, threatened or special concern species occurring currently or historically in unit waters. Round whitefish is the only fish species listed as endangered by New York State which may once have been present in area waters. The round whitefish was historically abundant in many Adirondack lakes, but has seriously declined in numbers and distribution. George (1980) states that the species "...must be considered highly vulnerable to competition and predation by invading southern forms". The BRW includes only one lake with the chemical/physical characteristics which may once have favored round whitefish, Sagamore Lake. However, private stocking efforts that included lake whitefish and the establishment of competitive nonnative species like smallmouth bass and yellow perch would have lead to the demise of round whitefish long before the lake was first surveyed in 1933.

HERITAGE STRAINS

Adirondack ponds are home to several "heritage" strains of brook trout believed to be unadulterated by exposure to domestic strains. Horn Lake, Little Tupper Lake and Windfall Pond are examples of lakes which have provided heritage strains of brook trout. Undiscovered heritage strains of brook trout may still exist in some unsurveyed ponds in the Adirondacks, but none of these are expected to occur in the Blue Ridge Wilderness. Creation of additional populations of heritage strain brook trout helps protect their

genotype(s) from accidental contamination which may occur in the future in their natal waters. Refugia for heritage strains must be isolated from other waters.

Competition and predation by introduced species have greatly reduced the abundance of brook trout sustained by natural reproduction. Only about 40 of the traditional brook trout ponds in public ownership in the Adirondack Park now support viable, self-sustaining brook trout populations. The potential for successful natural reproduction is greatly enhanced when interspecific competition and predation are reduced or eliminated. Human introductions of nonnatives and natives which had limited distributions have nearly eliminated natural brook trout monocultures in the Adirondacks. Historic brook trout monocultures have been documented in the Adirondack Park and the survival of even a few such unique communities through the massive environmental disturbances and species introductions of the 19th and 20th centuries is quite remarkable. Survey data indicates that Lower Mitchell Pond in the BRW is a brook trout monoculture, but that population likely established via an air stocking error since many of the trout captured in the 1992 survey were fin clipped. The brook trout in Lower Mitchell Pond are not a heritage strain. Past private stocking efforts in Sagamore Lake eliminate that naturally spawning population from designation as a heritage strain.

Brook trout were particularly successful at colonizing and thrived in the relative absence of competing and predacious fishes. George (1980) states: "Under primeval conditions, the brook trout was nearly ubiquitous in the Adirondacks. Its agility, great range in size and facility in rapidly flowing water allowed it to spread widely, perhaps even concurrently with the demise of the glaciers, thus explaining its presence in unstocked waters above currently impassable waterfalls."

The decline in brook trout associated with the introduction of other fishes is a result of both predation and competition for food. Brook trout feed primarily on invertebrates. Many other fishes, including white sucker, longnose sucker, redbreast sunfish, pumpkinseed, brown bullhead, yellow perch, and the cyprinids (minnows, shiners, and dace) also feed primarily on invertebrates (Scott and Crossman 1973). In low fertility waters such as Adirondack ponds, competition for such forage can be intense. In addition to competing with brook trout for food, many fishes prey directly on brook trout. Northern pike, largemouth bass, smallmouth bass, and rock bass are highly piscivorous. Species which may feed on eggs and/or fry include yellow perch, brown bullhead, pumpkinseed, creek chub, common shiner, white sucker and longnose sucker (Scott and Crossman 1973). The relative importance of competition versus predation in the decline of brook trout is not known for individual waters, but the result is the same regardless of the mechanism.

Natural reproduction by brook trout is also very sensitive to impacts from sedimentation caused, for example, by logging, fires and other human activities. During the 1800's, the Adirondacks supported a logging industry. Substantial areas were denuded and subsequently subjected to wildfires. For additional information on logging see Section III. Due to their reproduction behavior, brook trout are among the most susceptible of all Adirondack fauna to the impacts of sedimentation. Brook trout spawn in the fall, burying their eggs in gravel. Flow must be maintained through the gravel, around the eggs, until

hatching occurs the following spring. Sand or fine sediments restrict flow around the eggs resulting in an inadequate supply of oxygen.

SCENIC

To most visitors the Forest Preserve is best known as the impressive scenic backdrop to the state, county, and town highways that connect the many villages and hamlets of the Adirondack Park. Many of these roads are parts of a system of officially designated scenic byways, including the Adirondack North Country automobile trails that are marked with distinctive icons on brown and yellow signs. Scenic byways are managed to protect their visual character and to encourage economic development through tourism and recreation.

State Route 28 is a designated scenic byway called the Central Adirondack Trail. Between Indian Lake and Blue Mountain Lake, Route 28/30 is part of the Adirondack Trail. The lands of the BRW contribute significantly to the scenic quality of the south side of this highway corridor between the hamlets of Indian Lake and Raquette Lake. Blue Ridge–the long mountain for which the unit is named–is visible from Route 30 to those driving south from the Blue Mountain trailhead toward the hamlet of Blue Mountain Lake. The Blue Ridge is also visible from Route 28/30 along the edge of Lake Durant.

Within the BRW, a scenic vista on Sawyer Mountain gives views of the High Peaks to the east and Wakely Mountain, Panther Mountain and the Blue Ridge to the west. The fire tower on Wakely Mountain affords a panoramic view of the Blue Ridge Wilderness, West Canada Lake Wilderness, Moose River Plains Wild Forest, Blue Mountain Wild Forest, Sargent Ponds Wild Forest and Pigeon Lake Wilderness. Outside the unit, the fire towers on Blue Mountain and Snowy Mountain provide good views of the Blue Ridge and Wakely Mountain.

Major scenic vistas from within the unit may be lost without management action. For instance, without the Wakely Mountain fire tower, there would be no views of surrounding areas from the mountain summit. The view from Sawyer Mountain is limited to a small opening in the forest vegetation at a point where the ground surface drops off steeply. The view has been maintained through the clipping of selected small trees. Without maintenance, the vista would be largely obstructed within 10 years.

Average annual visibility in the BRW and WMPA is less than or equal to one-quarter mile on 3.7 days (one percent) of the year, less than or equal to one mile on 11 days (three percent) of the year, less than or equal to 3 miles on 40 to 55 days (11 to 15 percent) of the year, less than or equal to 10 miles on 150 to 183 days (41 to 50 percent) of the year, and greater than 10 miles on 150 to 219 days (41 to 60 percent) of the year (USDA NRCS National Water and Climate Center, 2000).

Facilities

An inventory of structures and improvements in the BRW and WMPA is included in Appendix 9.

NONCONFORMING USES

Wakely Mountain Fire Tower and Associated Structures: Within the WMPA, the fire tower, observer cabin and helipad are nonconforming structures.[1] According to the APSLMP, when the fire tower is no longer needed, the structures will be removed and the primitive area will be reclassified to become part of the BRW.

Great Camp Sagamore Ruins: A number of structures associated with Great Camp Sagamore are situated within the BRW. Little remains of most of the structures but foundations or, in some instances, alterations in the natural contours of the landscape where the structures once stood. The structures that remain most intact are those associated with the former hydroelectric facility on South Inlet, including a dam, valvehouse and powerhouse. The Sagamore structures, listed in Table 8, are historically significant and are included in Sagamore's National Historic Landmark designation.

Gould Road Spurs: The boundary between the BRW and the MRPWF in the area north and west of Wakely Pond is the edge of the Gould Road which is open to motor vehicle use. The Gould road leaves Cedar River Road at a point less than 100 feet east of the Wakely Pond outlet and proceeds northwesterly, then southwesterly in the direction of the trail to Wakely Mountain. Three spur roads, probably former logging roads, leave the Gould Road and proceed into the BRW. The first spur road leaves the Gould road at a point 0.5 miles from Cedar River Road and proceeds north one mile up Sugarloaf Mountain. The second spur road leaves the Gould road at a point 1.1 miles from Cedar River Road and proceeds north one mile to the saddle between Metcalf and Sugarloaf Mountains. The third spur road leaves the Gould road at a point 1.6 miles from the Cedar River Road and proceeds northwest 0.4 miles, then turns southwest an additional 0.4 miles. All three are dead-end roads. At present, the spur roads are not barricaded, and no barricade prevents motor vehicle use of the Gould road. A beaver dam blocks the Gould road 0.9 miles from Cedar River Road, preventing most vehicles except snowmobiles from proceeding past the dam.

Golden Beach Campground Septic System and Pipe Gate: The septic system for the Golden Beach Campground was constructed in 1966. It occupies a cleared area of approximately three-quarters of an acre located approximately 400 feet from Route 28. An unpaved road provides access. There is a pipe gate at the beginning of the road.

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[1]*The APSLMP lists the fire tower and associated structures as nonconforming under the assumption that, when no longer needed, they will be removed, and the primitive area will be reclassified to wilderness. Conversely, as long as the structures are needed, they are in a sense conforming within the primitive area.*

Sprague Pond pipe gate: A pipe gate is located at the beginning of the former road to Sprague Pond.

East Inlet Bridge: A foot trail bridge over East Inlet near Sagamore Lake consists of two steel I-beam stringers and a wood deck. The APSLMP requires that foot trail bridges be constructed of natural materials.

Past Influences

CULTURAL VALUES

"Cultural resources are the collective evidence of the past activities and accomplishments of people. They include buildings, objects, features, locations, and structures with scientific, historic, and cultural value." (New York Archaeological Council, 2000.) The Department is required by the New York State Historic Preservation Act (PRHPL Article 14) and SEQRA (ECL Article 8) to include cultural resources in the range of environmental values that are managed on public lands. In Forest Preserve management planning, cultural resource considerations range from historic structures and archaeological sites to the Forest Preserve itself.

The history of the Forest Preserve is the story of an evolution of values. Before the arrival of European settlers, Native Americans hunted, fished and collected plant foods in the Adirondack region. The value of the Adirondacks to Europeans centered around commodities from furs to iron ore and timber. Gradually small communities sprang up along the region's major rivers. State-sponsored exploration, starting with geologist Ebenezer Emmons in 1837 and continuing with surveyor Verplanck Colvin in the 1870s, inspired writers and artists, who helped popularize the region as a resort of great natural beauty with abundant fish and game. A growing sense that the mining, logging and tanning industries were spoiling this wild part of New York, especially among downstate businessmen worried that continued logging would lead to reduced flows in the Hudson River and Erie Canal, led to the legislative creation of the Forest Preserve in 1885 and ultimately to its protection under the New York State Constitution in 1895. The creation of the Forest Preserve was one of the earliest acts of large-scale public land protection in the nation. Only Yosemite and Yellowstone Parks had come before. The Adirondack precedent served as a foundation for the creation of a nationwide wilderness preservation system, established with the passage of the Federal Wilderness Act of 1964.

The Forest Preserve has great cultural significance for the people of New York as a protected natural landscape. Since its creation, its value has continuously grown. The importance of the Forest Preserve in the history of the state and the nation was commemorated in the designation of the Adirondack Forest Preserve as a National Historic Landmark in 1963. This designation automatically resulted in a listing in the State and National Registers of Historic Places. The value of Forest Preserve lands as a refuge for natural plant and animal communities where appropriate recreational access is encouraged was articulated with the adoption of the APSLMP in 1972.

Today, the values of the Forest Preserve may be described under four categories: experiential, scientific, symbolic and spiritual, and economic (Wilderness Management, Hendee and Dawson, 2002). It has experiential value, in that people may visit vast living landscapes and enjoy recreation in areas of great natural beauty. The Forest Preserve is important as a wild place where people may be rejuvenated by reconnecting with the natural world. Wilderness recreation was a major reason for the creation of the Forest Preserve, and it has become increasingly important as a growing population has expanded its influence over the land. The scientific value of the Forest Preserve derives from its character as a protected landscape where natural processes operate with minimal human influence. Forest Preserve lands serve as examples of natural ecosystems that may be studied to gain information about the conditions of the undisturbed natural world, and may be monitored to measure the effects of human activity on the realms of nature. By standing as an image of the beauty and power of nature, the Forest Preserve has symbolic and spiritual value. It is a symbol of the original condition of the state when Europeans first arrived, the frontier that challenged our ancestors as they struggled to build the first settlements. It embodies the belief that not all of New York State should be developed and occupied, but a large part should be protected in a natural condition, in the hope that a significant part of the state's original landscape will be preserved far into the future. Recreational access to Forest Preserve lands provides opportunities for people to experience spiritual uplift and inspiration as they leave the distractions of civilization, observe the panorama of wild lands, and interact with the basic elements of life.

Large numbers of people express their appreciation of the Forest Preserve through direct recreational use. However, the majority of New Yorkers may never set foot on Forest Preserve lands. Nevertheless, as the population of the state has increased and the development of land for agricultural, industrial and residential use has progressed, they have shown their support for the Forest Preserve by repeatedly approving funding for the purchase of new lands and resisting efforts to relax constitutional protections. In addition to these powerful intangible values, the Forest Preserve has significant economic value to the Adirondack region. Not only does the State pay full property and school taxes to counties, towns and villages, but the aesthetic and recreational attraction of Forest Preserve lands draws millions of people each year, who support lodging and dining establishments and an array of other businesses in the region.

The BRW has value as one of the wilder components of the wilderness system in the Adirondacks. Having relatively little recreational development and relatively low levels of recreational use, the BRW is especially suited for recreational experiences of solitude in an undisturbed natural landscape. With a large area of old growth forest in the central part of the area, it is suited to the scientific study of forest communities that have evolved with minimal human influence. And as the setting for the construction of Great Camp Sagamore, the BRW played a significant part in the development of a national land ethic.

Great Camp Sagamore

William West Durant began to promote recreational development in the central Adirondack region in the late 1870s. He developed a distinctively Adirondack architectural style in the construction of elaborate rustic camps that have come to be

known as "great camps." His last great camp, Sagamore, is on the edge of what is now the Blue Ridge Wilderness, which encompasses most of the 1,526 acres that were part of the original Sagamore estate. A full discussion of the history and cultural value of Great Camp Sagamore, along with Great Camp Uncas within the adjacent Moose River Plains Wild Forest, is presented in Section 5, Historic Great Camps Special Management Area, Special Area Plan.

HISTORIC STRUCTURES

Within the Forest Preserve, the type and number of permissible structures are limited by the requirements of the New York State Constitution and the APSLMP. Permissible structures are those that serve recreational purposes, such as lean-tos, and those that support administrative functions, such as interior outposts. Fire towers, where they are permitted by the APSLMP, may serve both recreational and administrative functions.

Fire towers have been the subject of considerable public interest over the last decade. The majority of surviving fire towers have been found eligible for listing on the State and National Registers of Historic Places, and a number of them were formally listed in 2001. For a State agency, a determination that a structure is eligible for listing has the same significance as formal listing, in that the agency is obligated to treat the structure appropriately and required to follow special procedures should it be necessary to remove or modify the structure.

The Wakely Mountain fire tower is one of 10 steel towers purchased from AerMotor of Chicago by New York State in 1916 and erected on mountain tops for fire detection purposes. These towers were distinctive in having ladders running up their sides rather than internal stairways. A stairway was added to Wakely in 1930. Of the original 10, Wakely is one of four remaining. (The other three are Cathead, Hadley and Woodhull.) The Wakely tower retains more of the original ladder structure than any of the others. With a height of 69 feet six inches to the floor of the cab and 78 feet two inches to the top of roof, Wakely is the tallest of the original 10 steel towers, the third tallest tower now standing within the Adirondack Park, and the fourth tallest ever erected in the Park.

The Wakely Mountain fire tower was listed on the New York State Register of Historic Places on August 7, 2003 and on the National Register of Historic Places on October 3, 2003. It is included in a Letter of Resolution between the Department and OPRHP signed in 1994. The letter was crafted to accommodate the requirements of the APSLMP and the State Historic Preservation Act. It acknowledged that the Wakely Mountain fire tower had been designated a National Historic Landmark, most likely by virtue of its being situated within the Forest Preserve, and suggested that the tower be retained.

ARCHEOLOGICAL RESOURCES

Archaeological sites are locations where materials (artifacts, ecofacts) or modifications to the landscape reveal evidence of past human activity. They include a wide array of resources ranging from precontact Native American camps and villages to Euroamerican

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 the New York State Office of Parks, Recreation and Historic Preservation to be searched 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 results of these site file checks are presented in Table 7. The recorded sites are outside the BRW and WMPA,

Table 7. Recorded Archaeological Sites Within Two Miles of the Blue Ridge Wilderness and Wakely Mountain Primitive Areas

Quad	Site Name	Description
Raquette Lake (15')	Marion River Carry	1899-1900. Landing dock, engine house, old water tank, bridge remains. Blue Mountain and Raquette Lake Steamboat Line.
Blue Mountain (15')	Cedar River-Indian Lake Hydroelectric Plant	20th century. Concrete dam, canal, wood stave penstock, wood frame powerhouse. Now a vacation cabin.
Raquette Lake (15')	Camp Pine Knot Farm Site	1877-1960s. Cut and wire nails, bricks, red earthenware, coal, and vessel and flat glass. One outbuilding, two foundations, one rubble pile.

within two miles of the unit boundary. Sites within the unit are not yet included in the database.

The quality of the site inventory information varies a great deal in all respects. Very little systematic archaeological survey work has been undertaken in New York State, especially in the Adirondack region. An inventory performed in implementation of the Historic Preservation Act was neither systematic nor comprehensive as it was limited to literature and anecdotal data. Therefore all current inventories must be considered incomplete. Few 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 polygons that encompass large areas. Systematic archaeological inventory work should be undertaken in the future to identify and document existing resources. Though a review of existing site files turned up no records of archaeological sites within the BRW or WMPA, a number of sites exist. Two sites designated as National Historic Landmarks are wholly or partially located within the unit: the Wakely Mountain fire tower and a number of structural ruins and roads associated with Great Camp Sagamore. Remnants of other early carriage roads also are visible.

The designation of Camp Sagamore as a National Historic Landmark in 2000 encompassed the entire original estate of 1,526 acres. Therefore, the components of the former hydroelectric complex and the other structures, as well as former carriage roads, are included in the designation. Some of the old carriage roads, such as the trail around Sagamore Lake, are clearly evident, while others seem to have disappeared without a trace. Buildings like the valvehouse and powerhouse from the former hydroelectric plant remain substantially intact, though little remains of the former boathouse on South Inlet but the submerged cribbing on which the structure was built.

A number of former carriage roads, logging roads and trails cross the lands now within the BRW. Old maps give evidence of a number of carriage roads constructed in the late 1800s, including those from Lake Sumner (now Lake Kora) to Aluminum Pond, what is now Cedar River Road to Dishrag Pond, and Cedar River Road past Stephens and Cascade Ponds to Eagle Lake. Carriage roads or foot trails are shown on topographic maps from 1903, including those from the east end of what is now Lake Durant to Stephens Pond, Rock Pond to Cascade Pond, and Eagle Lake to Slim, Potter and Mitchell Ponds. There is evidence that workers at Camp Sagamore, Camp Uncas and Kamp Kill Kare traveled to and from the Indian Lake area on a trail from the camps past Aluminum Pond and Dishrag Pond to Cedar River Road.

Table 8. Unrecorded Archaeological Sites Within the Blue Ridge Wilderness and Wakely Mountain Primitive Areas

Site Name	Description
Sagamore hydroelectric plant	Concrete dam on South Inlet, raceway to valvehouse of brick with concrete roof (some hardware in place), channel with steel ribs of former wood penstock leading to powerhouse of brick with concrete roof, remnants of two turbines and other hardware in place, raceway to river.
South Inlet boathouse	Remains of boathouse for launch owned by W. W. Durant. Near South Inlet Falls. Only remnants of log and rock support cribs under water remain.
Gate house	Site of former structure where a watchman greeted guests. Near Cascades trailhead on Sagamore Road. Building removed.
Milking barn	Ruins, east side of old field known as “farm meadow,” north side of Sagamore Lake.
Carriage and hay shed	Ruins, near old field known as “farm meadow”, north side of Sagamore Lake.
Sugar shack	Ruins between “farm meadow” and Sagamore Lake
Lineman’s cabin	Remains of former seasonal farm dwelling on north shore Sagamore Lake.
George’s Camp	Ruins of structure on south side of Sagamore Lake, east side.
Gloria’s Lean-to	Ruins near Blue Ridge trail.
Well	Formerly used to water horses on former road to Sagamore, now called Big Slope trail.
Gazebo	Ruins near south shore of Sagamore Lake,

Table 8. Unrecorded Archaeological Sites Within the Blue Ridge Wilderness and Wakely Mountain Primitive Areas

Site Name	Description
	west side.
Fish Camp	Former camp for Mossy Maxon, guide for Kill Kare and Sagamore owners and guests. Located about three miles east of Lake Kora where an old trail from what is now Lake Kora to Aluminum Pond crossed south fork of what was known as Sneed Creek and is now Lost Brook. Built by W. W. Durant about 1893.
Camp on Aluminum Pond	Attributed to W. W. Durant
Camp on Bear Pond	Shown on 1903 15-minute Raquette Lake quadrangle.
Road around Sagamore Lake	Former Camp Sagamore carriage road. Now used as Sagamore Lake foot trail.
Road from Sagamore Road to South Inlet falls, east side Sagamore Outlet	Former Camp Sagamore carriage road. Now used as Powerhouse foot trail
Road from Sagamore Road to South Inlet falls, west side Sagamore Outlet	Former Camp Sagamore carriage road. Now used as Cascades foot trail.
Road from Powerhouse road to road around Sagamore Lake	Former Camp Sagamore carriage road. Now used as Big Slope foot trail.
Winter road to South Inlet falls	Former Camp Sagamore carriage road. Visible as it heads southward from Route 28 near bridge over South Inlet, becomes steadily less visible, disappears well before falls. Used as logging road during 1950s timber salvage operations.
Carriage roads, trails between Camp Sagamore and Kamp Kill Kare and Cedar River Road	Old maps indicate road from Sumner Lake (now Lake Kora) to Aluminum Pond and road from Cedar River Road to Dishrag Pond. Reports of trail connecting the two ponds, forming a continuous trail.
Old Cascade Road	Former carriage road from Cedar River Road past Stephens and Cascade Ponds to Eagle Lake.
1950 Blowdown salvage logging roads	Numerous roads constructed in early 1950s to remove timber affected by 1950 Blowdown. Roads concentrated in northwest portion of BRW, area most significantly affected by storm. Some entered unit from Route 28, some from Sagamore Road. Records and maps on file in Department's Northville office.

The1950 Blowdown affected a large area of Forest Preserve land within what is now the BRW. An attorney general opinion that the Conservation Department had the authority to allow fallen timber to be removed resulted in a number of timber salvage operations in the northwestern portion of the BRW, the part of the unit most heavily affected by the storm. Numerous former logging roads heading southward into the unit from Route 28 are evident between Utowana Lake and South Inlet. A road used during one of the operations was the old winter road from Raquette Lake to Camp Sagamore, shown on an 1897 map. Table 8 lists the historic roads and structures associated with Camp Sagamore known to exist within the BRW, along with other historic roads in the unit.

Public Use

LANDS AND WATERS

Past and Present Use

With a total of only 11.5 miles of marked trails throughout its 74 square miles, the intensity of official trail development in the BRW is low in relation to other Forest Preserve wilderness areas. Public use is largely confined to marked trails and their destinations, namely Wilson Pond, Cascade Pond, Stephens Pond and Sawyer Mountain. The Northville-Lake Placid Trail traverses the unit from the former McCane's Resort past Stephens Pond to the Lake Durant Campground. Unofficial trails, such as the former roads to Sprague Pond and Death Brook Falls and those surrounding Great Camp Sagamore, also attract use. The trail to the summit of Wakely Mountain is lightly used compared with other fire tower mountains. Most of the trail is within the MRPWF; 0.5 miles is in the WMPA.

Ponds are the destinations of many of the trails in the BRW. Because fishing is a popular activity for many backcountry travelers, and the shores of ponds offer beautiful views, all three lean-tos and most of the tent sites in the unit are close to water. Ponds in the unit are used for fishing, swimming and boating. Creeks, brooks, and streams are used for fishing and for drinking water. Some skiing and ice skating may also be occurring. Ice fishing is prohibited in lakes and ponds designated as trout fisheries. Rock Pond and Lake Durant are warmwater fisheries where ice fishing is permitted. Other ponds in the BRW are fishless. Sagamore Lake and some of the unit's ponds are sites repeatedly sampled as part of ongoing research into the effects of acid precipitation.

Trail registers, whose primary purpose is to help locate people who lose their way in the backcountry, can provide information about trail use. Presently there are trail registers on the Northville-Lake Placid Trail at Lake Durant and at the Sawyer Mountain and Wakely Mountain trailheads. Many trail users do not sign registers, and register sheets are occasionally destroyed or lost through vandalism. Nevertheless, trailhead registrations can give a fair indication of relative use levels and can indicate long-term use trends. Table 9 gives trail registration numbers by year for BRW registers. The register sheets for most years for the Wakely Mountain trail were not available. A forest ranger standard operating procedure implemented in 2003 (Appendix 10) will assure that trail register sheets for all trail registers will be collected and made available for planning purposes.

Table 9. Trailhead Registrations, Blue Ridge Wilderness and Wakely Mountain Primitive Area

Trailhead	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
Northville-Lake Placid Trail at Lake Durant[1]	1,252	1,227[2]	1,283	1,259	1,361	1,566	1,264	1,141	NA	1,209
Sawyer Mountain Trail	2,035	1,059[3]	2,307	1,659[4]						
Wakely Mountain Trail[5]	1,138	1,254[6]							1,424	

Registration figures show that the use of the trail from the former McCane's Resort through Stephens Pond to the Lake Durant Campground is relatively low and has not varied much for many years. This leg of the Northville-Lake Placid Trail is mostly used by those heading from the campground to Stephens Pond. The number of people intent on traveling the NP Trail from end to end in a given year is relatively low. Since 1971 the Schenectady Chapter of the Adirondack Mountain Club has issued patches to those who have certified that they have hiked the full length of the trail. The chapter has awarded between 60 and 90 patches in each of the past several years.

The numbers of people who hike to the Wakely Mountain fire tower are significantly lower than the numbers for other nearby fire tower mountains. For instance in 1995, 1,424 people signed the register. That year the number of registrants at Blue Mountain was 13,375, while at Snowy Mountain 3,748 people registered. In 2002 when 9,924 registered at Blue Mountain and 3,473 signed in at Snowy, approximately 1,300 people signed in at the Wakely Mountain trailhead. Available information indicates that use levels on the Wakely Mountain trail have remained fairly steady over the years. The reason for the lower level of use at Wakely is not known, though it is thought that a major reason is the distance of the trailhead from a major highway and the heavily forested condition of the summit, which allows no views except from the fire tower.

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[1]*The trail register was moved from the intersection with the trail to Cascade Pond to the Lake Durant Campground in 1997.*

[2]*Trail register sheets for the period August 31 through October 14 were missing.*

[3]*Trail register sheets for the high-use period between early June and early September were missing.*

[4]*Registration began June 1, 2000, when the Sawyer Mountain trail register was first installed.*

[5]*The Wakely trail register was first installed August 6, 1990. Registration numbers were 742 people in 1990, 891 in 1991. In 1992 1,010 people signed in between 1/1 and 10/22. Sheets for the rest of the year were not available.*

[6]*Some use figures missing late August through mid-September.*

Use trends for the Wilson Pond, Cascade Pond and Sawyer Mountain trails, as well as the unmarked trails to Sprague Pond, Slim Pond, Death Brook Falls and those near Camp Sagamore, have yet to be documented.

Recreational pursuits and visitor use levels vary by season. In spring, anglers hike to accessible trout waters, including Sagamore Lake and Wilson, Cascade, Stephens and Sprague Ponds. Many anglers hike in and fish for the day, though some camp at lean-tos and established tent sites. According to observations by forest rangers and Fisheries staff, spring angler use of the ponds in the BRW is relatively light, with higher use levels at Sprague Pond because of its relatively good fishing and accessibility. On weekend days, usually no more than two or three cars are parked at any of the parking areas serving trails leading to interior waters. Fishing along interior streams is light, except on South Inlet near its outlet from Sagamore Lake and along the banks of larger pools, where angler use has caused the development of streamside pathways. Use of parking areas, trails and tent sites by anglers continues through summer and fall until the end of trout season.

People interested in hiking and camping visit the BRW throughout the year. Use levels are highest during the summer and fall. Most hikers follow marked trails, though some unmarked trails--notably the trails near Sagamore Lake–are regularly used.

According to Department staff and a review of trail register sheets, the majority of visitors are day-hikers. The Wakely and Sawyer Mountain trails are used almost exclusively by day-hikers. Most use of the Stephens Pond and Cascade Pond trails is day use, though the lean-to on each pond is regularly occupied by campers staying one or two nights. Many who stay at the Lake Durant Campground hike to Stephens Pond and back or make a loop to Stephens and Cascade Ponds, then back to the campground. Through-hiking on the Northville-Lake Placid Trail as recorded on the Lake Durant trail register occurs throughout the year. As expected, most use is recorded during the summer and fall months, though some use is recorded during winter and spring. Wilson Pond is a relatively easy day hike, and the lean-to is a destination for campers, but use levels are relatively low. Although they are not marked Department trails, the trail around Sagamore Lake and other trails in the vicinity of Great Camp Sagamore are traveled by the public. Sites with ruins associated with Sagamore are the destinations of groups led on interpretive walks by Sagamore staff. Most use near Sagamore Lake is day use, but occasionally people camp in the area. Occasionally a group will camp in the old farm meadow north of the lake. A clearing near the beginning of the Powerhouse trail also is a popular camping spot. Sagamore staff report regularly removing litter.

A review of trail register sheets revealed that most day-use groups are small, typically between one and five people. Relatively few large groups enter the unit. For each of the unit's three trail registers, register sheets were analyzed for the most recent period during which all the sheets for a full year were available. The results are shown in Table 10.

Table 10. Numbers of Large Day-Use Groups and Maximum Group Sizes from Trail Registers in the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Trail Register	Time Period	Number of Groups 10 or More	Maximum Group Size
Northville-Lake Placid Trail at Lake Durant	1/1/03 to 12/31/03	10 to 14: 7 15 to 19: 2 Total: **9**	19
Sawyer Mountain Trail	1/1/03 to 12/31/03	10 to 14: 15 15 to 19: 1 20 to 24: 2 Total: **18**	24
Wakely Mountain Trail	1/1/03 to 12/31/03	10 to 14: 6 15 to 19: 1 Total: **7**	17

Every now and then a bushwhacking hiker or hunter will venture into the trailless interior of the BRW. For the most part, the interior is seldom visited by people. Former logging roads in the northwestern part of the BRW, constructed during salvage logging operations following the 1950 Blowdown, serve as pathways to interior tent sites for big game hunters. Other former roads and trails, such as the trail from Sagamore Lake through Aluminum Pond and Dishrag Pond to Cedar River Road, are largely overgrown and no longer traveled.

The southeastern shore of South Inlet along most of its navigable length is the boundary of the BRW. A path leading to the water from a parking area on the south side of Route 28 is frequently used to launch canoes and kayaks. Though South Inlet is regularly traveled by motorized and nonmotorized boats, there is limited evidence of camping or day use along the southeastern shore. However canoes, kayaks, motorboats and jet skis land at the upstream limit of navigability near the attractive stretch of rapids known as the Cascades, identified on early maps as South Inlet Falls. Though the location of the wilderness boundary is not identified on the ground, it is estimated that the landing area is 500 to 1,000 feet on the wilderness side of the old property boundary that separates the BRW from the MRPWF.

Hunters enter the BRW during the fall big game season. Several interior locations have been used for many years as tent sites by hunting parties, though the numbers of hunters receiving camping permits has been declining. Areas where camping permits for extended stays during big game season have been issued include the vicinity of Loon Brook, Death Brook, Slim Pond and the area between Wilson and Potter Ponds. Hunters get to many interior tent sites by hiking along former roads constructed during the salvage logging operations of the early 1950s. In addition, hunting groups stay at the lean-tos on Wilson, Stephens and Cascade Ponds. Now and then a group will camp in the former gravel pit off Cedar River Road east of Fletcher Pond. Occasional parties of big game hunters travel across Sagamore Lake and up East Inlet.

Fall hunters interested in hunting for the day enter the unit from a number of developed and undeveloped access points. They park at trailheads or other roadside pulloffs all along Route 28, or at parking areas along Sagamore Road. On weekend days up to eight vehicles may be parked at the north entrance of the Sagamore Lake trail. Though accurate use numbers are not available, it is estimated that 50 to 100 people may enter the BRW to hunt on a peak fall weekend day.

With the exception of the Stephens and Cascade Pond trails and the unmarked trail around Sagamore Lake, winter use of the BRW is generally very low. The Stephens Pond trail and the segment from that trail to Cascade Pond, as well as the trail around Sagamore Lake, are suitable for skiing and snowshoeing and are used throughout the winter. Skiers also follow the unmarked Cascades, Powerhouse, Big Slope and Crossover trails near Sagamore. Additional winter use originated at the former McCane's Resort on Cedar River Road until the availability of parking was discontinued in 2004. The parking areas along Route 28 are plowed in winter, facilitating winter use. From December 1 to March 31, 2003, 98 people signed the Sawyer Mountain register. Occasional winter through-hiking on the NP Trail is recorded. The NP Trail register at Lake Durant was signed by 159 people from December 1 to March 31, 2003. During the same period, only four people signed in at the Wakely Mountain trailhead, which is located more than four miles from the point on Cedar River Road where plowing ends.

Few large groups camp within the BRW and WMPA. Forest Rangers occasionally have issued camping permits for groups of up to 12 people, mostly guided groups from youth camps. Most large groups camp in the area of the old farm meadow north of Sagamore Lake and at the lean-tos on Stephens and Cascade Ponds.

Sugarloaf Mountain has a fairly smooth bare rock cliff face oriented southeastward. Though not visible on the ground, the boundary of the BRW appears to run along the bottom of the cliff, so that it is within the unit. The land between the bottom of the cliff and Cedar River Road is privately owned. An internet search discovered a website describing rock climbing on the cliff. According to the climber who posted the description on the website, the cliff is relatively little used by climbers. The base of the cliff is mossy and shows little evidence of use. The only published source of information about the route is a book listing rock climbing areas across the country that came out 10 or 15 years ago. Generally the cliff has potential for broad climbing popularity because it has a smooth surface and rises at an angle significantly less than vertical, making it less difficult to climb than other mountains. However because of the uniformity of the face and its lack of cracks, anchors either hammered or drilled into the rock would have to be installed. A few have been installed, but they are not visible to anyone but climbers.

Access to the cliff face involves parking on Cedar River Road and walking to the base across lands leased by the landowner. Therefore, the use of the face is dependent upon permission from the landowner or lessees.

Public Use Impacts

A systematic assessment of the impacts of public use within the BRW has not been conducted. As indicated by trail register information and observations by Department staff, use levels are relatively low. Impacts related to use generally are confined to the vicinity of parking areas, trails and their destinations, including ponds and mountain summits.

Impacts to soils and vegetation on the foot trails in the unit are relatively low with some exceptions, some of them significant. For instance, the NP Trail north of the former McCane's Resort crosses an extensive wetland area. The trail there has widened significantly as hikers have attempted to avoid muddy sections. On several parts of the lower section of the Wakely Mountain trail, where it follows a former road, flowing water has caused significant gullying. Though the erosion observed there is not the result of trail use, it must be addressed. The part of the trail that ascends the mountain's steep eastern flank also shows signs of significant erosion. There are a number of wet spots on the trails to Wilson, Cascade and Stephens Ponds. A systematic inventory of trail conditions will afford a clearer picture of resource protection needs.

On the area's ponds, tent sites have been established through use. There are several sites on Sprague Pond that are too close to shore, including a site on each of the two islands. Areas of bare soil at these tent sites have the potential for soil erosion and visual impacts. Illegal camping on the islands could affect the breeding success of nesting loons. Though some use has occurred at undesignated tent sites on Wilson and Stephens Ponds, use impacts have not been significant. Few people camp on Sagamore Lake. Most overnight visitors stay at Camp Sagamore. Occasional camping may occur on an attractive peninsula with a sandy beach on the east end of the lake, south of East Inlet, though probably most use is day use. Minimal impacts to soils and vegetation are apparent, but the site is too close to shore to be suitable for designation. Another camping spot is an area of old fields known as the "farm meadow" on the northwest side of the lake, several hundred feet from shore. Use impacts have not been significant. There is little evidence of camping along the southeastern shore of South Inlet.

Because of the relatively low level of trail development and use, the BRW presents visitors with outstanding opportunities for solitude. Even in summer and fall on the unit's few marked trails, use levels are relatively low. During summer and fall, the numbers of parties signing the trail register on the NP Trail at the Lake Durant Campground averages three to five per day, with a maximum of 10 or 12 on peak weekends. In 2003, there were 13 entries in the trail register on July 26, the only day when more than 10 parties signed in. Most groups are small, with few larger than 10.

During 1995, there were only nine days when 10 or more parties signed the Wakely Mountain register:

July 2: 13	August 8: 12	September 2: 14	October 1: 10
July 3: 10		September 3: 15	October 8: 12
		September 24: 11	
		September 30: 17	

In 2003, more than 10 parties signed in on only two days. There were 14 entries on August 23 and 11 on October 11. Even the Sawyer Mountain trail, an easy hike to a good vista with its paved parking area on Route 28, is not heavily used. Recent summer and fall registration rates averaged five to 10 parties per day, with a rare day on which 15 to 20 parties signed in. In 2003, there were 10 or more entries on only four dates: 10 on August 7, 14 on August 31, 10 on October 11 and 15 on October 12.

Camping use at the unit's most favored destinations–the lean-tos on Wilson, Cascade and Stephens Ponds–is generally low. Therefore, the likelihood of occupying a lean-to when there is not another party on the pond is high, especially on weekdays. Those looking for solitude in a truly wild setting can explore the trailless western half of the unit, an area of approximately six by eight miles, where at any time of year there is little possibility that a traveler would meet another person.

The area surrounding South Inlet Falls, also known as the Cascades, shows evidence of a moderate amount of day use. Most visitors travel by boat from Raquette Lake or the undeveloped canoe and kayak access path at Route 28, land at points on both sides of the river below the cascades, walk the short paths along both shores and explore the immediate area. Impacts of use are evident, but not excessive. Vegetation has been displaced from shoreline areas, though soils appear stable. Fire rings have been assembled near shore. Sagamore staff report that they remove a significant amount of refuse left by visitors.

According to law enforcement staff and observations of trails and former roads, illegal motor vehicle use has seldom occurred within the BRW and WMPA. Physical impacts resulting from illegal use are minimal. Though there are numerous former roads within the unit, most of them have been barricaded. Some ATV use originating on private lands has been observed on the former road to Dishrag Pond and on the NP Trail north of the former McCane's Resort. The installation of barriers where former roads enter the unit, combined with ongoing education and enforcement efforts, would reduce illegal motor vehicle use impacts.

The impacts of climbing on the bare cliff face on the southeast side of Sugarloaf Mountain have been minimal.

Additional information is needed about the use of the BRW and the impacts of use on the area's physical and biological resources and recreational environment.

Projected Use

In general, the demand for recreation will grow as populations increase. Regional, national and international economic and political factors may affect the choices people make about what recreational activities to pursue. For instance, economic recession and increases in international tension could influence people in large northeastern cities to refrain from long-distance travel and pursue more local recreational activities, such as hiking and camping. Other factors, such as the aging of the American population, may lead to higher demand for more accessible recreation, such as walking in urban parks or camping in developed campgrounds, and lower demand for activities requiring physical exertion, such as hiking or skiing in the back country.

The 2003 Statewide Comprehensive Outdoor Recreation Plan (SCORP), prepared by the New York State Office of Parks, Recreation and Historic Preservation, provides an inventory of recreational resources and serves as a guiding document for recreational development throughout the state. The SCORP uses the results of an extensive survey of New York residents conducted in 1998 to project demand for various recreational activities in 2020. In general, the number of activity days per year that people devote to swimming, camping, hunting, hiking, boating, fishing and cross-country skiing is expected to increase between four and six percent by 2020. The SCORP also presents a table giving the projected relative index of need for recreational facilities by county for the year 2020. Within a county, the projected ratio of facility supply to demand for each recreational activity is represented by a number from one to ten. The number five indicates that the ratio of supply to demand is expected to be at the statewide average. The Hamilton County numbers for swimming, camping, hunting, hiking, boating, fishing and cross-country skiing vary between three and four, indicating generally that the present supply of recreational facilities for these activities will be adequate for the projected demand in the year 2020.

Though in general it is likely that the demand for wilderness recreation will increase over time, use trends among individual Forest Preserve units are likely to vary widely. It is not possible to accurately predict future numbers and patterns of public use in the BRW and WMPA. However, general statements can be made from a review of attributes such as location, access, land character and past use patterns. The periphery of the BRW is very accessible from public highways. The northern border of the unit has significant frontage on New York State Route 28, a major Adirondack access route arcing from the New York State Thruway to the Adirondack Northway. However, historically most use has been confined to the area's relatively few trails, and trail use has been relatively low, growing slowly if at all. In light of the unit's natural resource characteristics, existing and proposed facilities, and trends in past use, it is expected that use levels on the area's trails and tent sites will continue to remain steady or grow slowly, but that use levels will remain on the lower end of the spectrum of Adirondack wilderness use.

It is likely that use levels will increase on the Sprague Pond, Slim Pond, Death Brook Falls and Sagamore trails once they are marked and maintained. The physical, biological and social impacts of use will increase with use levels. However, because these trails exist and have been used for some time, their addition to the list of marked and maintained trails is not expected to result in significant increases in use. Anticipated use levels are not expected to impair the wilderness character of the area in the next five

years and beyond. The proposed restoration of the Wakely Mountain fire tower and the recent publication of a number of books popularizing fire towers is likely to cause the use of the trail to increase. However, a new trail along a better route to the summit is expected to be better situated to withstand use without significant soil erosion. The new location of the NP Trail will transfer use from Cedar River Road to the wilderness. The trail will be constructed with the objective of allowing it to withstand the physical impacts of use, which, because of its location in relation to destinations and access points, is expected to be largely limited to the relatively low number of through-hikers. The trail's route along the edge of the unit will preserve the large trailless area surrounding Blue Ridge. Off-trail use throughout the unit by hunters and trappers and impacts associated with their use are expected to decline in step with general trends.

It is the opinion of some of those who have climbed the cliff face on Sugarloaf Mountain that use levels are not likely to increase significantly from presently low levels. The need to cross private land to get to the base of the cliff probably will deter use.

The impacts of future use generally would be reduced through the adoption of regulations needed to implement existing APSLMP guidelines, such as those limiting camping group size to eight people and prohibiting the public use of motorized equipment.

Trends in use levels, patterns and impacts must be monitored to assure that the goals for the management of wilderness in general and the BRW in particular continue to be met over the long term. Locations within the BRW and WMPA expected to sustain the highest use concentrations in coming years are Death Brook Falls, Sprague Pond and the summit of Wakely Mountain. These locations and the trails leading to them should receive special attention in ongoing monitoring efforts. Additional discussions of projected use levels and impacts are presented in Section 4, Proposed Management Actions.

WILDLIFE

Data regarding actual public use of the wildlife resource within the BRW and WMPA are not available. A variety of wildlife recreation uses occur on the BRW and WMPA, including: hunting, trapping, hiking, bird watching, and wildlife photography. Past studies by the Department indicate that few sportsmen sign-in at trailhead registers. This, combined with the fact that many hunters and trappers traditionally use unmarked trails, watercourses, float planes, bush whacking, etc., to enter State lands, prevents an accurate estimate of total visitor use. Information regarding non-consumptive use of wildlife is also lacking. For the most part, observations of wildlife enhance the recreational experience of the general public. Recreational use tends to be heaviest near towns, roads, and access points. With the exception of the more readily accessible areas, the majority of the unit is not as heavily used by sportsmen during the hunting and trapping seasons. It is believed that some areas are heavily hunted, especially during archery, muzzleloading, and the early part of big game season. The posting of private lands directs a majority of hunting use to nearby public lands. Bird watchers also confine their use to areas that are most accessible.

A number of mammals and birds may be hunted or trapped during seasons set annually by the Department. These species are identified in the Environmental Conservation Law (ECL), Section 11-0903 and 11-0908. The Department has the authority to set hunting and trapping season dates and bag limits by regulation for all game species except white-tailed deer. Deer seasons are fixed in law set by the Legislature. White-tailed deer and bear may be taken during archery, muzzleloading, and regular seasons. Antlerless deer harvest is prohibited during the regular firearm season but may be permitted during the archery season. In addition, there is an early season for black bear.

Small game hunters may take certain waterfowl, woodcock, snipe, rail, crow, ruffed grouse, wild turkey, coyote, bobcat, raccoon, red fox, gray fox, weasel, skunk, varying hare, cottontail rabbit and gray squirrel. Muskrat, beaver, weasel, river otter, mink, fisher, American marten, skunk, raccoon, coyote, red fox, gray fox, and bobcat may also be trapped.

Harvest statistics are generated and compiled through the Department of Environmental Conservation Automated Licensing System (DECALS) for deer, bear, and turkey and a pelt sealing system for beaver, river otter, fisher, American marten, and bobcat. Harvest information is reported by township, county, and Wildlife Management Unit (WMU). Since harvest information is not collected on a Forest Preserve unit basis and harvest distribution is not evenly distributed across the landscape, harvest data by town are generally not representative of the actual harvest within units. Types and levels of non-consumptive uses of wildlife within the BRW and WMPA have not been determined.

Hunting and trapping are permitted throughout the BRW and WMPA, with the exception of a small area surrounding Camp Sagamore. 6NYCRR section 59.1 prohibits hunting and trapping within a described area of approximately 110 acres around the camp property (see Section III).

Potential Impacts

The impacts of public use on most wildlife species within the BRW and WMPA are unknown. Since the levels of public use generally are relatively low, it is assumed that use impacts are minimal. Wildlife species that can be vulnerable to disturbance associated with public recreational activity include the following.

NONGAME SPECIES

Common Loon: Common loons nest along shorelines of lakes and ponds. Their nests are often very near the water line, and are susceptible to disturbance from the land or from the water. Nests along shore are more susceptible to human disturbance where trails follow the shore of a lake. Nests along the shore or on islands are more susceptible to human disturbance if boats or canoes can be carried readily into lakes occupied by loons. Water bodies with greater boating access will have higher levels of disturbance. If adults are forced to leave the nest, nest abandonment could occur. Additionally, fledgling mortality can occur if chicks are chased by boats.

The loon is a long-lived species and a predator near the top of the food chain. These characteristics make loons more susceptible to the accumulation of environmental toxins. Thus, this species is often used by scientists as an ecological indicator of the health of the environment and water quality. Airborne contaminants, including "acid rain", can cause the bioaccumulation of mercury, a neurotoxin, and a decreased food supply, which can potentially lead to decreased reproductive success. The death of adult loons due to lead toxicity from the ingestion of lead fishing tackle accidentally lost by anglers is a concern and has recently been documented in New York State. The effects of direct human impacts on breeding loons within this unit, such as disturbance or shoreline use, has not been determined. However, is presumed to be low due to the minimal number of improvements and facilities. Management efforts will concentrate on protecting loon nesting areas and habitat.

GAME SPECIES

Impacts appear to be minimal for the handful of game species monitored. The Bureau of Wildlife monitors the populations of game species partly by compiling and analyzing harvest statistics, thereby determining levels of consumptive wildlife use. Several recent legislative changes have occurred that likely have had impacts on use of the area by hunters. Hunting of bears by using bait and by using dogs has been prohibited, probably lowering use by bear hunters. Use by deer hunters probably has increased because of two legislative changes, one allowing successful archers to purchase a second tag for use during the regular firearms season and similar legislation allowing successful muzzleloader hunters the same privilege. Harvest statistics are compiled by town, county and wildlife management unit. Although it is not known how the deer harvest is distributed within the towns, it can be assumed that, because of the heavily forested condition of the State lands (not prime deer habitat) and inaccessibility of some areas, fewer deer per square mile are harvested on BRW and WMPA lands than in the surrounding private lands. The narrow range of variation in annual harvest numbers, along with regular season regulations (bucks only), demonstrate little impact on the reproductive capacity of a deer population. Overall, deer populations within the unit are capable of withstanding current and anticipated levels of consumptive use.

An analysis of black bear harvest figures, along with a study of the age composition of harvested bears, indicates that hunting has 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.

The coyote, varying hare, and ruffed grouse are widely distributed and fairly abundant throughout the Adirondack environment. Hunting and trapping pressure on these species is relatively light. Under current regulations, these species undoubtedly are capable of withstanding current and anticipated levels of consumptive use.

While detrimental impacts to game populations over a large area are unlikely, wildlife biologists continually monitor furbearer harvests, with special attention to river otter, bobcat, fisher, and American marten. These species can be susceptible to overharvest to a degree directly related to market demand for their pelts as well as a variety of other

economic and environmental factors. The Bureau of Wildlife closely monitors furbearer harvest by requiring trappers to have the pelts of beaver, bobcat, fisher, American marten, and river otter sealed by Department staff. Specific regulations are changed when necessary to protect furbearer populations.

OTHER IMPACTS

Water fluctuations can have a significant impact on the nesting activity of loons, marsh birds, and waterfowl and can also have a negative impact on furbearers such as muskrats and beaver. The water levels of Lake Durant and Rock Pond are controlled by the Lake Durant dam. There is a low dam on the outlet of Sagamore Lake whose construction appears to have been linked to the Sagamore hydroelectric plant. Water level variations on these impoundments should be minimized and, if necessary, conducted in ways that will minimize wildlife impacts. The maintenance and protection of winter deer yards remains a concern of wildlife managers, particularly in the Adirondacks, as they fulfill a critical component of the seasonal habitat requirements of white-tailed deer. Because few data are available on the impacts of cross-country ski trails and foot travel during winter on deer use of wintering areas, research is needed. Guidelines for protecting these areas are outlined in the Critical Habitat section.

FISHERIES

In general, information about the numbers of anglers who visit the waters of the BRW is not available. However, several ponded waters containing salmonids, such as Sprague Pond, Cascade Pond, Sagamore Lake and Stephens Pond are known to be popular with anglers.

Several of the coldwater streams in the unit contain brook trout and are visited by anglers. South Inlet on the western border of the unit is its most heavily fished stream. Angler use and use impacts are restricted to footpaths paralleling the stream near its outlet from Sagamore Lake with some evidence of bank fishing near larger pools. The use of streams located farther in the interior of the unit is light and there are no known physical impacts.

The relative seasonal intensity of the use of BRW ponds by anglers can be predicted. After the trout season opens on April 1, fishing pressure on ponded trout waters typically peaks in intensity in May when trout can still be found near the surface of a pond. Fishing activity declines from late spring throughout the summer when the formation of a thermocline draws trout to deeper water. The decline of fishing activity which occurs as the summer progresses coincides with an increase in pond visitation by hikers and campers. Angling on brook trout ponds increases slightly in the fall but ceases altogether after the trout season closes on October 15.

There are few trail head registers in the BRW. Additionally, many anglers do not sign registers if they have been to the pond previously and are unafraid of becoming lost or because they do not wish to tip off others where there might be good fishing. Most

angling trips are day use, since hiking distances to unit waters are of moderate length (0.5 to 3 miles). Lean-tos on Stephens Pond, Cascade Pond and Wilson Pond may be used for extended camping and fishing stays by some parties.

Rock Pond is a non-trout water which contains yellow perch and, probably, largemouth bass and tiger musky emigrants from Lake Durant. Therefore, the lake remains open to angling during the late fall. Ice fishing is permitted on Rock Pond, but winter use is very light. Sagamore Lake contained smallmouth bass at one time, but the species has not been captured during recent surveys. Ice fishing is not permitted on Sagamore Lake.

RECREATIONAL OPPORTUNITIES FOR PEOPLE 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 Blue Ridge Wilderness and Wakely Mountain Primitive Area. An explanation of the ADA and it's influence on management actions is provided in Management Guidelines, Section 3.

At present, there are no structures or improvements in the unit which have been specifically modified for access by people with disabilities. Some trails in their present condition have generally firm and stable surfaces and are relatively free of obstacles and steep grades. They would be passable by many people with mobility impairments, even wheelchairs with assistance from companions.

Sagamore Lake Trail: Though the unmarked trail around Sagamore Lake has not been evaluated for its accessibility, it is an old forest road whose surface over much of its length is relatively level, firm and free of obstacles. However, occasional relatively steep pitches, exposed roots and rocks, and the thick turf of grasses that has grown over much of the surface of the former road would pose significant obstacles for wheelchairs. At 3.5-miles, the complete loop is moderately long. The major bridge over East Inlet has large gaps between planks and no railing. A smaller bridge along the southeast shore would have to be replaced. In many places along the south shore the trail requires extensive drainage work and has an uneven surface with a dense growth of grasses. The boulder barriers on both entrances to the trail need to be modified to permit wheelchair passage.

Cascades Trail: This former Sagamore carriage road from Sagamore Road to South Inlet Falls is in excellent condition, having a generally firm and stable surface with no steep pitches, very few surface obstacles, no bridges and no drainage problems. The turf of grasses that has grown over much of the surface of the former road outside the course of the narrow footpath would impede the passage of wheelchairs. The trail's 1.5-mile length is substantial, but not out of the question for people with disabilities. There is a fairly long grade as the trail descends to the edge of South Inlet, but it is not steep. There is a good viewpoint at the shore of South Inlet a little before the end of the trail, where better views are available. The trail has not been formally evaluated for accessibility.

Sprague Pond Trail: The trail from Cedar River Road to Sprague Pond is about 0.4 miles long. It is a former road with gentle grades and a relatively firm and stable surface that leads to the water's edge. There are no bridges on the trail. There is a gate at the entrance of the trail which should be replaced with boulders that leave sufficient space for the passage of wheelchairs. The trail has not been formally evaluated for accessibility. Though the trail surface is much smoother than most Adirondack trails, there are numerous roots, rocks and short steep pitches that are obstacles to wheelchairs and people with gait disorders. The last 200 feet to the pond is rocky and would present the most significant obstacles to people with mobility impairments. It is possible that a location suitable for an accessible primitive tent site could be found near the end of the trail.

Death Brook Falls Trail: There is a former road leading about one-third mile from Route 28 to a scenic waterfall known as Death Brook Falls. It has not been formally evaluated for accessibility. The trail has a relatively hard surface with few obstacles and no bridges. A wet area near the end of the trail would require bridging. There is one section with a fairly steep pitch that would be difficult for people with gait disorders and very difficult for many people with disabilities using wheelchairs.

Relationship Between Public and Private Land

ADJACENT STATE LANDS

The BRW and WMPA share boundaries with the Sargent Ponds, Blue Mountain, Jessup River and Moose River Plains Wild Forests, as well as the Golden Beach and Lake Durant Campgrounds. Presently motorboats and jet skis travel up South Inlet within the Moose River Plains Wild Forest along the northwest border of the BRW, occasionally traveling far enough so that they cross onto the wilderness side of the old property boundary that separates the BRW from the MRPWF.

All but the last half mile of the Wakely Mountain trail is within the MRPWF. A proposed new route to the summit also will mostly lie within that unit. Indirect measures to control use impacts within the WMPA, such as limiting the capacity of parking areas, need to be addressed in the MRPWF UMP. On the other hand, decisions about managing the fire tower and associated structures on the Wakely Mountain summit will have direct effects on the use of the parts of the trails within the MRPWF.

Though some day use on the trails to Stephens and Cascade Ponds originates from the Lake Durant Campground, the impacts of use have not been significant. The availability of attractive hikes into the wilderness enhances the enjoyment of campground visitors. No marked trails exist in the vicinity of the Golden Beach Campground. However, the proposal to mark the trail to Death Brook Falls will afford an enhanced hiking opportunity to Golden Beach Campground visitors.

In seeking a new route for the Northville-Lake Placid trail, alternatives involving route segments in the MRPWF and WCLW were analyzed. Should the selected route include

segments in one or both units, the UMPs for those units would have to include the construction of those segments as management actions.

ADJACENT PRIVATE LANDS

The Year 2000 Census reported that the town of Indian Lake, which includes the hamlets of Blue Mountain Lake and Indian Lake as well as a significant community of primary and secondary residences along Cedar River Road, had a population of 1,471 with 1,722 housing units, many of which are second homes for seasonal residents. The Year 2000 Census also reported that the town of Long Lake, which includes the hamlets of Raquette Lake and Long Lake, had a population of 852 with 1,496 housing units. Again, many of these housing units are second homes belonging to seasonal residents. Because of their proximity, permanent and seasonal residents in the local area probably comprise a significant proportion of those who hike, camp, fish and hunt in the BRW and WMPA.

Adjacent private lands have the potential to affect the management of the BRW. Large parcels of paper company lands along the unit's southern border are managed for timber production. Timber lands generally are more compatible with wilderness than private lands that are subdivided for residential and commercial development. The paper company lands are leased to hunting clubs. The proximity of the wilderness, which is open to public hunting, may make private lands more attractive to prospective lessees, and therefore more valuable to landowners. Occasional incursions into the BRW by ATVs and other motor vehicles may originate from adjacent private lands where motor vehicle use is permitted. Pathways marked with ribbons or other means and cleared of brush and blowdown enter the wilderness from adjacent private lands.

The proximity of the BRW may also increase the economic and cultural value of other adjacent public lands. Private lands associated with Camp Sagamore and Kamp Kill Kare share boundaries with the BRW. The protection of the New York State Constitution will assure that the vast forest that was the original environmental context of the Great Camps will be preserved. In addition, by their proximity to Camp Sagamore, BRW lands contribute to Sagamore's educational mission.

6NYCRR section 59.1 prohibits hunting and trapping within a described area of approximately 100 acres surrounding Camp Sagamore. The area was established as a safety zone around the camp complex with the purpose of supporting the viability of Sagamore as a self-sustaining historic preservation and educational enterprise.

Private lands between Route 28 and the northern border of the BRW are protected by a conservation easement, which prohibits development and logging while allowing limited private uses, such as the removal of hazard trees for firewood. The easement protects these lands in a condition compatible with the adjacent wilderness. Trails within the protected lands are used by the landowner for nonmotorized recreation. A separate easement over a part of the same lands permits public access to the first part of the trail to Wilson Pond.

The presence of a large tract of land open to public recreation may increase the likelihood that the public will trespass on nearby private lands. In general, potential trespass problems should be addressed through boundary marking and signage, as well as effective public education. With the permission of the landowner, the Northville-Lake Placid Trail crosses private lands between Cedar River Road an the BRW. Because the owner of the land adjacent to the road has had difficulties with people who litter, park in the driveway, or cross other parts of his land, he has decided to allow only through-hikers to use the trail, and only until the NP Trail has been relocated to Forest Preserve lands.

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 BRW and WMPA, 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. The provisions of the constitution and the APSLMP limit management options for wildlife. In contrast, private lands adjacent to the BRW and WMPA are managed quite differently. Fields can be kept open, and logging is allowed. Logging on private lands adjacent to the BRW and WMPA will provide some early successional habitat, adding considerable diversity to the types of habitats present in the landscape. This diversity in habitat leads to more diversity in wildlife. 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 the BRW and WMPA. It is probable that many of the species of wildlife within the BRW and WMPA will benefit from the habitats found on adjacent private lands.

LOCAL ECONOMIC IMPACTS

Besides its many intrinsic values, the Adirondack Forest Preserve is an important economic asset for the region. Both indirectly, as a powerful attraction to tourists and a positive influence on private land values, and directly in terms of property tax payments to local governments, the Forest Preserve makes substantial contributions to the local economy. While some Forest Preserve visitors are serious hikers, hunters and anglers who spend almost all their time on State land, most are day users who consider a Forest Preserve outing just one of many reasons to take a trip to the Adirondacks. They may combine a walk on a trail with visits to local shops and restaurants and an overnight stay at an inn or motel. Others are drawn to the area simply to enjoy the impressive mountain scenery of Forest Preserve lands. Though these visitors may never set foot on a trail, the contribution that they make to the local economy is partly due to the existence of the Forest Preserve.

While it is clear that the indirect effects on tourism and private land values in the Adirondack region that result from the existence and use of the Forest Preserve are substantial, they are understood only in general terms. To assist in improving local and regional planning, research is needed to more accurately characterize and quantify indirect economic effects. On the other hand, the economic benefits directly conferred on the region by the payment of property taxes can be more closely quantified. According to a law passed in 1886, now §532A of the Real Property Tax Law,

> "All wild or forest lands belonging to or which may hereafter be acquired by the State . . . shall be assessed and taxed at a like valuation and at a like rate as those at which similar lands of individuals within such counties are assessed and taxed."

A detailed determination of the amount of property taxes paid by the State to localities for the lands of the BRW and WMPA has not been made. An approximation of the average total annual tax amount for the lands of the two units in 2000 is $9.00 per acre.[1] Therefore, the total taxes paid to Hamilton County and the towns of Lake Pleasant, Indian Lake, Long Lake and Arietta for the unit's estimated area of 47,000 acres was approximately $423,000. The State pays additional taxes to the Village of Speculator.

Although precise angling use figures for the BRW are not available, the economic importance of angling in Hamilton county which surrounds the unit was estimated during a statewide angler survey conducted in 1988 by the Department (Connelly and Brown, 1990). In Hamilton county, an estimated 54,380 anglers fished 403,760 days and generated $9,178,590 in at-location expenditures. Although the fishery resource for Hamilton county is by no means concentrated in the BRW, the unit does attract anglers via its intrinsic resources and adds to the aesthetic appeal of the whole region.

Brook trout are the primary gamefish species within the BRW. Connelly and Brown (1990, Table 61) estimated that anglers spent approximately $30.46 per day devoted to fishing for coldwater gamefish. This study also estimated that anglers spent 1.39 million days fishing for brook trout in New York State (Table 6). Much, probably greater than 80 percent, of the brook trout fishing resource in New York State is located in the Adirondacks. Angling for brook trout is obviously an important economic activity in the Adirondacks.

The pursuit of wildlife provides substantial economic income to the State and local communities throughout New York. The expenditures of sportsmen who hunt or trap are important to New York's economy. Research specific to the BRW and WMPA has not been conducted. However, expenditures by those who hunt and trap within the unit 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 infuse considerably more money into the State and local economy.

Education and Interpretation

The Department of Environmental Conservation publishes numerous brochures with simple maps orienting visitors to areas of the Forest Preserve. Department publications

[1]*The weighted average total property taxes per acre for all State lands in all municipalities containing parts of the BRW and WMPA.*

with general forest preserve information are available, including the *Adirondack Forest Preserve Map and Guide*, and *Use of New York State Public Forest Lands*. As they patrol the Forest Preserve, forest rangers and assistant forest rangers carry out informal educational efforts when they meet hikers, anglers, hunters and campers. Many rangers teach the principles of the *Leave No Trace* program. The Department also enters into partnerships with local governments and not-for-profit organizations for the purpose of educating and assisting Forest Preserve users. Examples of such partnerships include stewardship agreements with fire tower friends groups.

The Department has not yet developed a brochure for the BRW and WMPA. However, the unit is featured in a number of privately published guidebooks and maps, including those by the Adirondack Mountain Club and the *Discover the Adirondacks* series by Barbara McMartin.

Great Camp Sagamore is situated on the western edge of the BRW. Sagamore is operated by a not-for-profit organization and is open to the public. From May to October, Sagamore hosts a variety of recreational activities and educational programs. The staff and facilities that serve Sagamore's public tours provide information and amenities to growing numbers of hikers. Because much of the original Sagamore estate now lies within the BRW, many of Sagamore's interpretive activities include visits to BRW lands. The original estate, all of which was included in Sagamore's National Historic Landmark designation, includes all the former carriage roads and the ruins of the hydroelectric complex and other structures which are integral to Sagamore's educational mission and interpretive programs.

Research

Scientific research into an array of subjects has been conducted on Forest Preserve lands. Researchers are required to obtain revocable permits for the temporary use of State lands (TRPs) before beginning research activities. As conditions of all research permits, research results must be submitted to the Department, and the New York State Museum is given the right of first refusal of all specimens and objects collected. Recent research projects for which TRPs were issued which may have included the BRW and WMPA are summarized in Table 11. Some of the projects focused on locations within the unit; others may have included the unit within a regional or Adirondack Park-wide scope. Additional projects include ongoing research into the effects of acid precipitation, which involves some of the waters in the unit. The Rensselaer Fresh Water Institute maintained a precipitation collection station in a clearing north of Sagamore Lake in the 1970s. Sagamore Lake is part of the long-term monitoring program of the Adirondack Lakes Survey Corporation.

Table 11. Research Projects Within Hamilton County or Within the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Location	Organization	Author/ Contact	Project Description	Dates
Stephens Pond	University of Toronto, Wildlife Conservation Society	Justina C. Ray	Study the ecology of Adirondack coyote population as part of a study looking at inter-species competitive interactions and parasite-host dynamics in the Adirondack Region	6/15/00 - 9/15/00
Clinton, Franklin, Hamilton, Essex, Fulton, Montgomery, Albany, Schoharie, Schenectady, Greene, Ulster, Sullivan, Orange, Dutchess	USDA APHIS	Charles Emery	Trap placement for survey and detection of Pine Shoot Beetle. Survey using Lindgren funnel trap baited with Alpha-pinene as a lure.	2/01/00 - 7/31/01
St. Lawrence, Franklin, Herkimer, Hamilton, Clinton Counties	USDA Fish and Wildlife Service	Mark Carrara	Trap live raccoons to take blood and tooth samples for monitoring populations and consumption of baits and to vaccinate animals against rabies.	6/01/01 - 2/01/02
Altamont/Long lake, Franklin and Hamilton Counties	Aiken Forestry Science Lab	Marla Emery	Integrated socioecological survey of the Adirondack Park Region, developing a sampling strategy for biological surveys.	7/01/99 - 8/01/99
Essex, Franklin, and Hamilton Counties	SUNY ESF	Bird, Housek, Necht, Weir	Collect fungi fruiting bodies on a weekly basis and collection of root tips 2 times a season. Plots will be established for a two-tiered study, each sampling plot is 20m by 50m, there will be two plots per site. Compare ectomycorrhizal fungi in old growth mature and partially cut sites.	3/1/02-12/31/02
Clinton, Essex, Franklin, Saint Lawrence, Lewis, Herkimer and Hamilton Counties	SUNY ESF	K. Didier	Use State land for ice storm deer browse impact study. Deer enclosures were built and maintained on sites associated with the 1998 ice storm. Studying the long term impacts of deer on hardwood regeneration in the Adirondack region. There is one enclosure per site (7mx7m). Deer effects outside and inside the enclosure are monitored.	5/17/99-8/31/02
Several Units, Including Blue Ridge Wilderness	SUNY ESF	Chad Dawson	The Coping Behaviors of Wilderness Visitors in New York's Adirondack Park.	5/26/00 - 9/04/00
Whole park	USDA Forest Service, Forest Inventory and Analysis Unit; NE Station	USFS	Installing FIA plots.	5/01/02 - 6/30/03

Table 11. Research Projects Within Hamilton County or Within the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Location	Organization	Author/ Contact	Project Description	Dates
Washington and Hamilton Counties	Ohio State University	Lisa Wallace	Platanthera huronensis, P. hyperborea, and/or P. dilata will be sampled for leaf tissue, flowers and pollinator activity.	6/15/99-6/15/00
St. Lawrence, Herkimer, Hamilton, Franklin, Clinton, Essex, Warren counties, not high peaks area	Cornell University	Maureen Carter	Insect collection for research. Survey undetected bark and wood-boring forest beetles alien to U.S. An inventory of bark and wood boring beetles in the Adirondacks will provide a baseline inventory for exotic species.	5/01/02 - 8/31/02
North Elba, North Hudson, Newcomb, Harrietstown, Long Lake	Paul Smiths College	Matthew S. Rothamel	Administer surveys for recreational backcountry use.	9/02/02 - 10/14/02
All Adk. Preserve Counties	Syracuse University, Dept. of Civil & Environmental Engineering	Dr. Chris Johnson/ Charles Driscoll	Collect water, soil and foliage samples in 38 lake-watersheds in the ADK Preserve. This is a revisit of earlier work from the Direct Delayed Response Project investigating lake and watershed acidification in the northeast region. This work is associated with the ALSC long-term Monitoring Program.	5/28/01-6/1/03
St. Lawrence, Franklin, Herkimer, Hamilton, Clinton Counties	USDA Fish and Wildlife Service	Mark Carrara	Live trap raccoons and take blood and tooth samples to monitor populations and consumption of baits to vaccinate animals against rabies.	6/01/02 - 6/01/03
Raquette Lake south shore	Lamont-Doherty Earth Observatory of Columbia University	Neil Pederson	Sample trees in order to understand the relationship between climate and range in tree species.	1/01/03 - 12/31/02

Section 3 – Management History and Direction

Past and Present Management

The Forest Preserve has been managed by the New York State Department of Environmental Conservation and its predecessor agencies since its creation in 1885. The activities of this succession of State agencies included protection against forest fires and timber trespass, management of fish and game, enforcement of fish and game laws, and the development of recreational facilities such as backcountry trails and roadside campgrounds.

With the passage of the Adirondack Park Agency Act in 1971, some of the responsibility for the management of the Forest Preserve was transferred to the Adirondack Park Agency. As required by the Act, the APA prepared the APSLMP, first adopted in 1972, which placed Forest Preserve lands into various classifications and established guidelines for the management of lands within each classification. The Act requires the Department to prepare a unit management plan for each management unit. APA is responsible for reviewing unit management plans prepared by the Department, as well as individual management actions, for compliance with APSLMP guidelines.

The BRW and WMPA have been managed according to the wilderness and primitive area guidelines of the APSLMP since 1972. The major goal of management since that time has been to achieve and perpetuate a natural plant and animal community where man's influence is not apparent, and to encourage wilderness-dependent recreation to the degree that it does not endanger the wilderness resource.

LANDS AND WATERS

Most of the lands constituting the BRW were acquired between 1877 and 1908. Lands including the WMPA were acquired in 1959. With the creation of the Forest Preserve in 1885, early management consisted simply of the prevention of tree cutting, the protection of the unit from forest fires, and the enforcement of fish and game laws. Traditional forms of forest recreation were permitted, including hunting, trapping, fishing, boating, hiking and camping. Early laws permitted the sale of small parcels of Forest Preserve lands, the leasing of Forest Preserve lands for the construction of cottages, and the sale of timber. After the New York State Constitution was amended in 1895 to include the protection of the Forest Preserve, the sale of land and timber ceased.

Recreational access to the lands of what is now the BRW was permitted along early trails and carriage roads. Topographic maps from 1903 show a trail from Sumner Lake (now Lake Kora) to Aluminum Pond and another between Eagle Lake and Blue Mountain Lake connecting Slim, Potter, Wilson, Brady, Mitchell, Cascade and Stephens Ponds. There was a carriage road between Shedd (now Sagamore) Lake and Raquette Lake along the east side of South Inlet, one to Dishrag Pond from Cedar River Road and another from the east end of what is now Lake Durant to Stephens and Cascade Ponds.

The Northville-Lake Placid Trail, which passes through the BRW, was constructed by the Adirondack Mountain Club and opened in 1923. The entire route within the BRW followed former carriage roads.

The 1950 Blowdown affected large areas of the unit. Many of the trees affected by the storm were removed as part of the extensive timber salvage operations permitted in the aftermath of the storm. The logging roads constructed by the salvage contractors were later used as jeep trails for recreational access into the unit's interior. At some time during the 1950s, it is reported that a "fire trail" was cleared from Sagamore Lake past Aluminum Pond and Dishrag Pond to Cedar River Road near where Browns Brook crosses the road. It may have been intended to serve as access for fighting wildfires in the large area north of the trail affected by the 1950 Blowdown. The trail, which partially followed the routes of former paths and roads, has not been maintained for many years.

Finch, Pruyn and Company conveyed two large parcels as gifts to the State for forestry purposes. The State took title to a 726-acre parcel in Township 33 encompassing Sugarloaf and Roundtop Mountains and the east end of Metcalf Mountain in 1955. A parcel of 1,173 acres in Township 7 including Wakely Mountain and most of Metcalf Mountain was acquired in 1959. To date the Department has not removed trees from those lands.

The Wakely Mountain fire tower was staffed by a fire observer during spring, summer and fall between its construction in 1916 until 1988, when the fire tower observer was replaced by a program of aerial detection flights. The Department continues to maintain a trail to the tower, which remains a popular destination for hikers.

Most construction and maintenance of the structures and improvements in the BRW and WMPA is conducted by the Department trail crew based at the Indian Lake office. The Department receives maintenance assistance from volunteers. The Department has recognized the successful Adopt-A-Lean-to and Adopt-A-Trail programs of the Adirondack Mountain Club by entering into long-term stewardship agreements with the Club. The three lean-tos in the BRW have been adopted, and ADK's Susquehanna Chapter has adopted the Wilson Pond trail. Individual volunteers have adopted the NP Trail segment between Cedar River Road and the Lake Durant Campground.

When the APSLMP was adopted in 1972, the Blue Ridge and Wakely Mountain units were classified as wilderness and primitive areas, and motor vehicle use was prohibited. According to the APSLMP, actions taken to bring the management of the units into conformance with wilderness guidelines included the closure of 5.5 miles of roads open to motor vehicles and 5.5 miles of snowmobile trails. The map of the Blue Mountain Lake area in the 1971 Department booklet, *Snowmobile Trails in New York State* shows a snowmobile trail from the Cascade Pond trailhead to Cascade Pond, with a spur along the former road to Grassy Pond and on to Wilson Pond. A trail that appears to have been less than half a mile long proceeded from Route 28 about a mile east of Golden Beach Campground toward Slim Pond. According to retired forest ranger Gerry Husson, the former snowmobile trail was a loop from the Cascade Pond trailhead, past Cascade Pond to the NP Trail north of Stephens Pond, then back through the Lake Durant Campground

to Route 28. Since that time, public use has been managed using general regulations that apply to all Forest Preserve lands. Though they are adequate for managing most situations, they do not fully conform with APSLMP guidelines. For instance, there is no regulation prohibiting the public use of motorized equipment, and no regulatory limit to the number of people who may camp at one location. A recent legal interpretation of an existing regulation indicated that Department enforcement staff had no legal basis for enforcing against the storage of boats, tree stands or other personal property on Forest Preserve lands.

Sagamore Safety Zone

In 1975 the State purchased all the former Camp Sagamore estate of more than 1,500 acres except for eight acres encompassing the main buildings. The property had long been posted against hunting and trapping, and the caretaker had maintained a small tame deer herd by a program of regular feeding. Soon after acquisition, the Department heard proposals to continue to manage the area as a wildlife refuge. Department wildlife biologists reviewed the proposals and concluded that there were no rare species or critical habitats within the former Sagamore property requiring protection beyond that afforded by existing laws and regulations. They recommended that deer feeding be discontinued, and hunting in the vicinity of the Sagamore buildings be suspended up to five years to protect the tame deer herd until they had dispersed.

A major issue raised by Sagamore representatives was the concern that the proximity of hunters bearing firearms, especially during the big game season, could deter people from visiting Sagamore and participating in its educational and recreational programs. The Department decided that the protection of the economic viability of the organization engaged in the preservation of Sagamore warranted the establishment of a safety zone around the building complex. In 1976, 6NYCRR section 95.1 was adopted, prohibiting hunting and trapping within a described area of approximately 100 acres around the Sagamore property (see Appendix 11).

WILDLIFE

Past and present wildlife management activities on the BRW and WMPA have been shaped largely by Article XIV of the New York State Constitution that provides that the lands of the Forest Preserve “shall be forever kept as wild forest lands” and that the timber thereon shall not be “sold, removed, or destroyed.” In addition, according to the APSLMP, “the primary wilderness management guideline will be to achieve and perpetuate a natural plant and animal community where man’s influence is not apparent.” Therefore, habitat management through timber cutting, planting wildlife food plants, prescribed burning, or other means of modifying the vegetation to alter wildlife habitat is not permissible. Management actions involving the removal or establishment of vegetation for the purpose of altering wildlife habitat are not permitted in the BRW or WMPA. In addition, NYCRR §194.2 (b) prohibits prescribed fires to be set on Forest Preserve lands. Options for wildlife management in the Forest Preserve include the setting of hunting and trapping seasons, harvest limits and manner of taking, the

restoration or population augmentation of native species, efforts to prevent the introduction of non-native species, and the removal of non-native species.

Current wildlife management for game species within the Forest Preserve is achieved through a highly regulated harvest management system that establishes seasons, open areas, bag limits, and manner of taking. Harvest statistics are generated and compiled using the Department of Environmental Conservation Automated Licensing System (DECALS) for deer, bear, and turkey and a pelt sealing system for beaver, river otter, fisher, American marten, and bobcat. As with other Forest Preserve units, our understanding of the occurrence and distribution of many wildlife species is limited.

It is the policy of the Department to perpetuate and restore native animal life within New York State for the use and benefit of current and future generations, based upon sound scientific practices and in consideration of social values. A number of restoration efforts have been conducted in the Adirondack region, including projects to re-establish the peregrine falcon, bald eagle, and Canada lynx. The Department continues annual monitoring of bald eagles and peregrine falcons.

The Department cosponsors the Breeding Bird Atlas project, which has provided useful data on the occurrence and distribution of many species, including those that are classified as endangered, threatened or special concern. The Department receives sighting reports of Canada lynx, moose, wolves and cougars each year. In most cases, these reports are investigated by DEC staff to ascertain the details and authenticity of the observations.

The wolf and eastern cougar are considered to be extirpated form New York State. Periodic sightings of cougars are reported from the Adirondacks, but these are believed to be released captive individuals. Because sufficient cougar habitat is not available in New York, the Department does not intend to pursue their reintroduction. The eastern timber wolves occasionally reported are generally considered to be misidentified coyotes, although there is some evidence to suggest that the eastern coyote found in the Adirondacks may be a hybrid between the red wolf and coyote. It is not clear that a wolf population could survive in New York, given the abundance of highways and our large human population. Nor is it clear that a population of wolves in the forests of the Adirondacks would be compatible with the interests of residents or the farmers that live on the periphery of the Adirondack region. For these reasons, the Department is not considering wolf restoration at this time.

The Department annually issues aquatic pesticide permits to Towns who request them for the use of the biological pesticide *Bacillus thuringiensis* var. *israelensis* (Bti) to control black fly larvae populations in streams. The variety *israelensis* is extremely selective for black flies and mosquitoes in its insecticidal properties. Several field and laboratory studies have indicated that the bacterium is non-toxic to most other organisms and does not persist in the environment. A number of streams within the BRW are treated by the Town of Indian Lake.

FISHERIES

Prior to incorporation within the BRW, Sagamore Lake was privately owned and managed for fisheries. It is known that lake trout, brook trout and lake whitefish were stocked historically and it is likely smallmouth bass were introduced before the turn of the century. Some privately stocked lake trout were known to come from New York's Caladonia hatchery. A privately run hatchery existed on Lake Kora and fish from this facility were stocked in the Sagamore Lake watershed for many years (Melville 1977).

Stocking records are incomplete for New York State prior to the first biological surveys of the 1930s. Until those surveys, much haphazard and biologically unwise stocking took place which introduced many nonnative species to BRW waters and increased the range of other native species.

The use of fish as bait has been prohibited entirely in the unit in order to curtail "bait-pail" introductions of competing and/or nonnative fish species. In recognition of the fact that competing fish species are detrimental to native brook trout populations, the Conservation Department undertook a program to reclaim certain Adirondack lakes with rotenone in the 1950s. Rotenone is a piscicide developed from the roots of certain southern hemisphere plants (and used in raw form by the natives there for millennia to collect food fish) which biodegrades within days in the aquatic environment at summer temperatures. Scientific studies have demonstrated that reptiles, mammals and birds are not harmed by rotenone applications and that the few invertebrate and amphibian species affected by rotenone rebound quickly to original population levels. Within the BRW, Sprague Pond was reclaimed in 1971. The reclamation successfully eliminated white sucker, brown bullhead, golden shiner and creek chub, but pumpkinseed survived. Brown trout stocking was initiated a few years after the reclamation. Golden shiner were reintroduced to Sprague Pond, probably via the bait pail, some time after 1975. Slim Pond (R-P302) was reclaimed in 1969 to eliminate unspecified species of minnows. At least some minnows survived this reclamation attempt, but fishing for brook trout was good during the 1970s.

In recent times, the fisheries of the BRW have been managed in accordance with Organizational and Delegation Memorandum #93-35, Policy: Fishery Management in Wilderness, Primitive and Canoe Areas, which was most recently amended November 2, 1993 (Appendix 7). Degradation of spawning habitat and abundance of competing fish species severely limit brook trout natural reproduction (see Section 2, Fisheries). Therefore, brook trout populations in many ponds have been maintained by the Department’s annual stocking program. Most waters (approximately 80 percent of potential trout ponds in wilderness areas), cannot be reclaimed due to technical or logistical reasons. For instance, reclamation is precluded in ponds having extensive bog and swamp areas which provide refugia for fishes during treatment. The need for suitable barrier dam sites or natural waterfalls to prevent reintroduction is another constraint. Managing trout ponds in the BRW which cannot sustain adequate natural reproduction serves to preserve populations of this native species and to provide opportunities for quality wilderness fishing experiences, such as early explorers may have enjoyed.

Brown trout have been stocked in three unit trout ponds and may be introduced to others in the future. In all situations where brown trout have been stocked, abundant populations of nonnative golden shiner have negatively impacted the brook trout population. Brown trout are more efficient predators on minnows than brook trout and their introduction has served to supplement the brook trout fishery while reducing the number of competing golden shiner in the pond. This mixed stocking approach has worked well in Stephens Pond, which cannot be reclaimed to eliminate nonnative competitors.

Most of the named waters within the unit have received at least one biological survey since the 1930s. Between 1984 and 1987, the Adirondack Lakes Survey Corporation conducted thorough biological and chemical surveys on eight ponds within the BRW (Appendix 4). Twelve waters were surveyed in 1992 by the Department to provide background data for this UMP. Section 2, Fisheries includes a discussion of present day fish distribution within the BRW based on the most recent ALSC and Department surveys.

No unit waters have been limed to improve pH levels. Most of the acidic ponds in the unit are natural bog ponds with darkly stained water. At least one of these ponds, Lower Mitchell Pond, supported a brook trout population when it was last surveyed. Only Potter Pond exhibits the chemical and physical characteristics of an artificially acidified water. The pond does not qualify for liming, however, because its flushing rate of 11 times per year is too high.

Management Guidelines

FOREST PRESERVE MANAGEMENT

This unit management plan has been developed within the guidelines set forth by Article XIV of the State Constitution, Article 9 of the Environmental Conservation Law, Parts 190-199 of Title 6 NYCRR of the State of New York, the APSLMP, and established Department policy.

Article XIV of the State Constitution provides in part that, “The lands of the State, now owned or hereafter acquired, constituting the Forest Preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed.”

The APSLMP provides guidance for the use and management of lands which it classifies as wilderness and primitive areas by establishing basic guidelines. APSLMP guidelines for wilderness and primitive areas are given in Appendices 9 and 10. The APSLMP 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 practice, the Department and APA have jointly signed a memorandum of understanding concerning the implementation of the APSLMP 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 and 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.

Department policy has been developed for the public use and administration of Forest Preserve lands. Policies relevant to the management of the BRW and WMPA include:

- Administrative Use of Motor Vehicles and Aircraft in the Forest Preserve (CP-17)
- 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)
- The Administration of Conservation Easements (NR-90-1)
- Acquisition of Conservation Easements (NR-86-3)
- Division Regulatory Policy (LF-90-2)
- Adopt-A-Natural Resource (ONR-1)
- Policies and Procedures Manual Title 8400 - Public Land Management
- Fishery Management in Wilderness, Primitive and Canoe Areas - Amended 11/02/93 (O&D #93-35)
- Final Generic Environmental Impact Statement on the New York State Department of Environmental Conservation Program of Liming Selected Acidified Waters (DEC 1990).

The Department also maintains policy to provide guidelines for the design, location, siting, size, classification, construction, maintenance, reconstruction and 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 New York State Environmental Quality Review Act of 1975.

THE BIODIVERSITY ACT

The Biodiversity Act of 1993 mandates that the Department identify, manage and conserve plants, animals and ecological communities that are rare in New York State, and that are located on State-owned lands under the jurisdiction of the Department. The Act also establishes the New York Natural Heritage Program to identify, locate, rank and maintain records on the status of rare plants, animals and ecological communities, for the purpose of conserving and managing the state's biological diversity.

HISTORIC PRESERVATION

The New York State Historic Preservation Act of 1980 (SHPA, Article 14 of Parks, Recreation and Historic Preservation Law) and its implementing regulations (9 NYCRR 426, 427 and 428) created the State Register of Historic Places and recognizes the National Register of Historic Places. The statute further obligates State agencies to act as stewards of historic properties (buildings, structures, objects and archaeological sites) they own and requires that agencies identify, evaluate and mitigate impacts to historic properties that might be affected by actions they undertake, fund or permit. The Department is also specifically charged with providing historic sites and services within the Adirondack Park in ECL Articles 9 and 41.

The historic and archaeological sites located within the BRW and WMPA 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, Article 9 of Environmental Conservation Law, 6 NYCRR Section 190.8 (g) and Section 233 of Education Law. Unauthorized excavation and removal of materials from any of these sites is prohibited by Article 9 of Environmental Conservation Law and Section 233 of Education Law. In some cases additional protection may be afforded these resources by the Federal Archaeological Resources Protection Act (ARPA).

THE AMERICANS WITH DISABILITIES ACT (ADA)

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 thoroughly examine 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 an 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. The development of an inventory of all the recreational facilities or assets supporting the programs and services available on the unit was conducted during the UMP process. The assessment established the need for new or upgraded facilities or assets necessary to meet ADA mandates, in compliance with the guidelines and criteria set forth in the Adirondack Park State Master Plan. The Department is not required to make each of its existing facilities and assets accessible. New facilities, assets and accessibility improvements to existing facilities or assets proposed in this UMP are identified in the "Proposed Management Recommendations" section.

The Americans with Disabilities Act Accessibility Guidelines

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, campgrounds, 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 <u>newly</u> <u>constructed</u> structures and facilities and <u>alterations</u> to existing structures and facilities. Further, it applies to <u>fixed</u> 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.

APPLICATION OF GUIDELINES AND STANDARDS

Best Management Practices

All trail construction and relocation projects will be developed in accordance with the APSLMP, and will incorporate the use of Best Management Practices, including but not limited to such considerations as:

- Locating trails to minimize tree cutting;
- Locating trails to minimize necessary cut and fill;
- Laying out trails on existing old roads or clear or partially cleared areas where their condition and location meet the goals of trail construction;
- Locating trails away from streams, wetlands, and unstable slopes wherever possible;
- Using 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 bottoms and gentle approach slopes;
- Constructing stream crossings, including bridges where needed for resource protection, 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;
- Avoiding areas where habitats of threatened and endangered species are known to exist;
- Using natural materials to blend bridges and other structures needed for resource protection into the natural surroundings.

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 to minimize necessary cut and fill;
- Locating lean-tos to minimize tree cutting;
- Locating lean-tos away from streams, wetlands, and unstable slopes;
- Using drainage structures on trails leading to lean-to sites to prevent water from flowing into the sites;
- Locating lean-tos on flat, stable, well-drained sites;
- Limiting construction to periods of low or normal rainfall.

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

- Locating parking areas to minimize necessary cut and fill;
- Locating parking areas to minimize tree cutting;
- Locating parking areas away from streams, wetlands, and unstable slopes wherever possible;

- Locating parking areas on flat, stable, well-drained sites using gravel for surfacing or other appropriate material to avoid stormwater runoff and erosion;
- Limiting construction to periods of low or normal rainfall;
- Limiting the size of a parking area to the minimum necessary to accommodate appropriate levels of interior use.

All fish stocking projects will be in compliance with the *Programmatic Environmental Impact Statement on Fish Species Management Activities of the Department of Environmental Conservation, Division of Fish and Wildlife,* June 1980.

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*, October 1990, as well as the Division of Fish, Wildlife and Marine Resources liming policy.

All pond reclamation projects will be in compliance with the *Programmatic Environmental Impact Statement on Fish Species Management Activities of the Department of Environmental Conservation*, *Division of Fish and Wildlife*, June 1980 and the *Programmatic Environmental Impact Statement on Undesirable Fish Removal by the Use of Pesticides Under Permit Issued by the Department of Environmental Conservation, Division of Lands and Forests, Bureau of Pesticide Management,* March 1981. The construction of fish barrier dams will be in compliance with the *Programmatic Environmental Impact Statement on Habitat Management Activities of the Department of Environmental Conservation, Division of Fish and Wildlife*, December 1979.

Archaeological Site Protection

The Department is committed to the appropriate treatment of historic resources within the BRW and WMPA. Prior to the undertaking of any development or major rehabilitation of structures or improvements, the Department will complete any necessary surveys, inventories or other investigations to assure the identification and protection of historic and archaeological properties. The area manager, in consultation with the Agency Historic Preservation Officer and the Office of Parks, Recreation and Historic Preservation will determine the appropriate treatment for historic and archaeological resources affected by a development or maintenance project.

Significant historic and archaeological resources within the BRW and WMPA include the Wakely Mountain fire tower, listed on the New York State and National Registers of Historic Places in 2003, and the Camp Sagamore ruins, included in Sagamore's designation as a National Historic Landmark in 2000. Management actions affecting these resources will be reviewed in accordance with the requirements of SHPA.

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 each 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.

Administration

When it was created in 1885, the management of the Forest Preserve was put into the hands of the New York State Forest Commission, which was reorganized and renamed a number of times over the years. It was followed by the Board of Fisheries, Game and Forests in 1895, the Forest, Fish and Game Commission in 1900, the Conservation Department in 1911 and the Department of Environmental Conservation in 1970. Today, the Department is responsible for the direct day-to-day management of the lands and waters of the Forest Preserve. The administration of the Department's various program responsibilities is conducted from a number of Regional offices and suboffices.

Within Region 5, the regional director has the ultimate management authority over the BRW and WMPA. The supervision of the activities of the Divisions of Lands and Forests and Fish and Wildlife within the unit is delegated to the supervisor of natural resources.

The Division of Lands and Forests is responsible for the preparation of Forest Preserve unit management plans, overseeing the implementation of UMPs, coordinating Forest Preserve management activities with the Adirondack Park Agency, preparing budget requests and overseeing the expenditure of funds for Forest Preserve construction and maintenance, protecting open space and providing educational materials for the public. The activities of the Division of Lands and Forests within the unit are supervised by the regional forester. Reporting to him are the supervising forester in the Northville suboffice and foresters involved in the preparation and implementation of unit management plans.

The Division of Fish, Wildlife and Marine Resources protects and manages fish and wildlife species, provides for public use and enjoyment of natural resources, stocks freshwater fish and licences fishing, hunting and trapping. The regional fisheries manager and the regional wildlife manager, both stationed in Ray Brook, oversee the activities of the Division of Fish, Wildlife and Marine Resources. Appropriate staff from the division are assigned unit management planning and fish and wildlife management responsibilities in the BRW and WMPA.

The Division of Water protects water quality in lakes and rivers by monitoring waterbodies and controlling surface runoff.

The Division of Air Resources regulates, permits and monitors sources of air pollution, forecasts ozone and stagnation events, educates the public about reducing air pollution and researches atmospheric dynamics, pollution and emission sources. The Adirondack Lakes Survey Corporation (ALSC) is part of the Division of Water.

The Division of Operations designs, builds and maintains Department facilities and infrastructure, operates Department campgrounds and day-use facilities and maintains interior structures, such as lean-tos, and improvements such as roads and trails. The regional operations supervisor in Ray Brook oversees division activities in the region. The Indian Lake office discharges the responsibilities of the Division of Operations in the northern half of Hamilton County, including the construction and maintenance of structures and improvements in the BRW and WMPA.

The Division of Public Affairs and Education is the public communication wing of the Department. The Division communicates with the public, promotes citizen participation in the UMP process and produces, edits and designs Department publications.

The Division of Law Enforcement is responsible for enforcing New York's Environmental Conservation Law, which relates to hunting, fishing, trapping, licence requirements, endangered species, the possession, transportation and sale of fish and wildlife, trespass, and damage to property by hunters and anglers. Regional captains supervise lieutenants, who in turn supervise environmental conservation officers (ECOs).

The Forest Ranger Division is responsible for the preservation, protection, and enhancement of the state's forest resources and the safety and well-being of the public using those resources. Until the creation of the Division of Operations in 1972, forest rangers supervised the construction and maintenance of facilities in the Forest Preserve. Forest rangers are the stewards of the Forest Preserve and are the primary public contact for the BRW and WMPA. They issue camping permits and educate the public about proper backcountry behavior. They are responsible for fire control and search and rescue functions. In 1980, State law designated forest rangers as peace officers with all powers to enforce all State laws and regulations, with emphasis on the Article 9 of the Environmental Conservation Law and 6 NYCRR 190. Regional captains supervise lieutenants, who in turn supervise forest rangers.

The ongoing interaction between the Department and APA in the management of the Forest Preserve is governed by a memorandum of understanding. The memorandum details the procedures to be followed by both agencies in meeting the requirements of the APSLMP.

Management Principles

GENERAL FOREST PRESERVE PRINCIPLES

The primary goal of Forest Preserve management is to assure that the lands of the Forest Preserve "shall be forever kept as wild forest lands,"consistent with the New York State Constitution, Article XIV, Section 1. In conformance with the constitutional constraints and the Department laws, regulations and policies that embody this goal, as well as the APSLMP guidelines for each classification, the Department manages Forest Preserve lands to preserve and protect natural resources and to provide opportunities for a variety of recreational activities for people of all abilities. Through partnerships with local governments, organizations and individuals, the Department protects the wild forest character of the Forest Preserve while providing for its use and enjoyment in ways that support the regional economy.

MANAGEMENT PRINCIPLES FOR WILDERNESS AREAS

The following principles, first adopted in the HPWA UMP, reflect established national wilderness management philosophy. They will guide the management team in developing this UMP and addressing day-to-day management issues in the BRW.

- **Manage Wilderness as a Composite Resource, Not as Separate Parts.** Wilderness is a distinct resource producing many societal values and benefits. One of the distinctive features of wilderness is the natural relationship between all its component parts: geology, soil, vegetation, air, water, fish and wildlife – everything that makes up a wilderness. In most cases, separate management plans will not be developed for vegetation, fish, wildlife, recreation, etc. Rather, one plan will deal simultaneously with the interrelationships between these and all other components.

- **Manage the Use of Other Resources and Activities Within Wilderness in a Manner Compatible with the Wilderness Resource Itself.** All proposed management actions must consider their effect on the wilderness resource so no harm comes to it. For example, recreation should be managed and kept within acceptable levels that maintain the unit's wilderness character, including opportunities for solitude or primitive and unconfined types of recreation emphasizing a quality visitor experience. (APSLMP, 2001; Hendee et.al, 1990).

- **Allow Natural Processes to Operate Freely in Wilderness.** This principle is derived in part from the APSLMP definition of wilderness in dealing with the term "natural conditions." According to the APSLMP, the primary wilderness management guideline will be to achieve and perpetuate a natural plant and animal community where man's influence is not apparent (APSLMP, 2001, Page 20). It means not introducing exotic plants and animals not historically associated with the Adirondacks nor manipulating native vegetation to enhance one resource over

another. Actions to remove exotic species of plants and animals are considered necessary to protect native communities.

- **Attain a High Level of Wilderness Character Within Legal Constraints.** An important APSLMP wilderness goal is to retain, and where necessary make Adirondack wilderness areas as wild and natural as possible. Examples of this principle include efforts to rehabilitate alpine summits and restore severely eroded trails.

- **Preserve and Enhance Wilderness Air and Water Quality.** Wilderness air and water quality bear testimony to the general health of our environment. Federal and State laws are designed specifically to protect air and water quality. In wilderness, internal pollution sources such as human and domestic animal wastes must be controlled.

- **Safeguard Human Values and Benefits While Preserving Wilderness Character.** Wilderness areas are not just designated to protect natural communities and ecosystems; they are also for people. The APSLMP directs that "human use and enjoyment of those lands (meaning State lands within the Adirondack Park) should be permitted and encouraged, so long as the resources in their physical and biological context and their social and psychological aspects are not degraded" (APSLMP, 2001, Page 1). This is especially true for wilderness.

- **Preserve Outstanding Opportunities for Solitude or a Primitive and Unconfined Type of Recreation.** This principle comes directly from the APSLMP definition of wilderness (APSLMP, 2001, Page 21). Levels of solitude within any given wilderness will vary; sometimes substantially. Management strategies to protect the wilderness resource should strive to minimize the amount of contact or control over visitors once they are in the unit. (Hendee et.al., 1990).

- **Control and Reduce the Adverse Physical and Social Impacts of Human Use in Wilderness Through Education and Minimum Regulation.** When human use must be controlled to prevent misuse and overuse, it is best to do so by education followed by the minimum degree of regulation necessary to meet management objectives. The latter option is sometimes called the minimum tool rule – application of the minimum tools, equipment, regulations, or practices that will bring the desired result (Hendee et.al., 1990).

- **Favor Wilderness-Dependent Activities When Managing Wilderness Use.** Wilderness is a distinct resource, and many recreational or other activities taking place there can be enjoyed elsewhere. Not all outdoor activities require a wilderness setting. Examples are large group use, orienteering schools, competitive events, and other organized events. A Department management goal is to refer these activities to Wild Forest Areas.

- **Remove Existing Structures and Terminate Uses and Activities Not Essential to Wilderness Management Except for Those Provided by the APSLMP.** "A

wilderness area is further defined to mean an area of state land or water having a primeval character without significant improvements or permanent human habitation . . .” (APSLMP, 2001, page 20). Except for those structures, uses, and administrative actions specifically identified by the APSLMP, the Department is mandated to remove all non-conforming structures and uses not compatible with a wilderness environment as soon as possible. (APSLMP 2001, page 20).

- **Accomplish Necessary Wilderness Management Work with the Minimum Tool.** This principle requires every management action to be scrutinized to see first if it is necessary, then plan to do it with the “minimum tool” to accomplish the task. The Department has established guidelines and policies for many administrative activities in wilderness areas including, but not limited to, trail construction, boundary line marking, use of motorized equipment and vehicles, cutting and removal of trees, and fisheries management. Its goal is to have the least possible impact on the environment and the visitor experience (Hendee et. al., 1990).

- **Establish Specific Management Objectives, with Public Involvement, in a Management Plan for Each Wilderness.** Working together within the constraints of the APSLMP, managers and the public need to define acceptable levels of use and specific management practices for each Adirondack wilderness. These need to be clearly stated in management plans available for public review and comment. It is essential visitors and other users understand wilderness values, and managers clearly know their management responsibilities. The Limits of Acceptable Change (LAC) process should be applied where appropriate to allow the progress toward meeting important carrying capacity objectives to be measured (APSLMP, 2001; DEC policy 1972-present; Hendee et.al, 1990).

- **Harmonize Wilderness with Adjacent Land Uses.** Wilderness management should be coordinated with the management of adjacent State and private lands in a manner that recognizes differing land management goals.

- **Manage Wilderness with Interdisciplinary Scientific Skills.** Because wilderness consists of complex relationships, it needs the skills of natural resource professionals and social scientists that work as an interdisciplinary team focusing on preserving wilderness as a distinct resource. Environmental and social sciences are used in decision-making.

- **Manage Uses, Structures and Improvements Permitted by the APSLMP with the Minimum Impact on the Wilderness Resource.** The APSLMP (2001) authorizes certain uses and structures in wilderness areas. Permitted structures include interior outposts, existing dams on established impoundments, existing or new fish barrier dams, trails, bridges, signs and lean-tos (See generally APSLMP 2001, Pages 21-26). Construction of additional conforming structures and improvements will be restrained to comply with wilderness standards, and all management and administrative actions will be designed to emphasize the self-sufficiency of users in an environmentally sound and safe way.

Public Participation

Department staff have clear mandates for the management of a number of issues that can affect wilderness. For example, the APSLMP requires that public motor vehicle use be prohibited. There is no question that the Department must take appropriate actions to prevent illegal motor vehicle use. However, for some issues, legal and policy guidance is less concrete. For instance, hiking trails may be constructed in wilderness, and a wilderness area must have outstanding opportunities for solitude. But there is no simple template for determining how many hiking trails there should be or where they should go, nor an easy formula for determining the level or availability of solitude that is appropriate in specific locations. To obtain assistance with such decisions, Department managers invite the public to participate in the development of UMPs. In the effort to set a management direction for the BRW and WMPA that strikes a proper balance between recreational use and the protection of natural resources and ecological processes, Department staff seek to supplement an understanding of wilderness management guidelines and available research with the advice of organizations, local governments and individuals.

DEVELOPMENT OF THE DRAFT UMP

Public participation for the BRW and WMPA UMP began with the development of an extensive mailing list. On March 28, 2002 a package of information about the management unit and the planning process, along with an invitation to a public meeting and a request for comments was mailed to nearly 200 individuals, organizations and government agencies interested in the management of the area. Also on that date a press release was distributed to newspapers, radio stations and television stations in and around the Adirondack region.

To assure that people from across the state would be able to meet planning staff, provide information and present ideas for all management units, the Department hosted a series of UMP open houses across the state in January, 2001. Meetings took place in Cheektowaga, Rochester, Syracuse, Greenvale, New York City, New Paltz and Guilderland. In addition, a public meeting specific to the BRW and WMPA was held in the Adirondack Museum's Conference Building in Blue Mountain Lake on June 6, 2002. At the meeting Department staff described the UMP process, gave a description of the unit and received public comments. Sixty-five people attended. Approximately 50 people communicated directly with the planner, submitting comments by mail, e-mail and telephone. Magazines such as *The Adirondack Explorer* have facilitated public participation in planning through numerous articles about planning issues.

A number of comments of a general nature were received. The comments covered a range of topics, including the need to protect the Forest Preserve and its plant and animal communities from overuse and from water and air pollution, to conduct research about natural resources and the impacts of human activities, to enforce laws and regulations, to provide a variety of recreational opportunities, to separate incompatible uses, to retain trailless areas, to maintain facilities, to limit the use of motor vehicles, snowmobiles,

aircraft, motorboats and jet skis on Forest Preserve lands–as well as the need to provide appropriate opportunities for motorized uses–and to provide better information about the Forest Preserve. Many of the comments echoed the provisions of the APSLMP and are considered in the development of all UMPs. Others, such as an interest in allowing motor vehicle use in wilderness, may not be considered at the UMP level because they are expressly prohibited by the APSLMP.

In addition to those of a general nature, a number of the comments received applied specifically to the BRW and WMPA. Specific comments were of special interest to the planning team and helped frame management issues. Major topics of public comment specifically related to the BRW and WMPA are listed and discussed below.

- **Wakely Mountain Fire Tower:** By far the largest number of comments related to the Wakely Mountain fire tower. The comments were unanimous in support of retaining the fire tower for its recreational, educational and historic preservation value. One comment made support for keeping the tower contingent on a demonstration of need, as called for in the APSLMP. Some expressed the wish that the structure of the tower not be modified by the addition of communications equipment. A number of comments included support for a proposal to reclassify the part of the WMPA encompassing the fire tower and observer's cabin to wild forest and the rest to wilderness.

- **Sagamore Ruins:** Nearly all those who commented on the remains of the hydroelectric plant and other structures that once were part of the Camp Sagamore complex supported the position that the structures should be allowed to remain in place subject to the forces of nature. A number of comments made reference to the inclusion of the structures in Camp Sagamore's National Historic Landmark designation and their importance to Sagamore's educational mission. Some expressed ambivalence about the structures. One suggestion was to raze the structures, leave the foundations in place and move the contents of the generator house to the Sagamore grounds where they could be restored and interpreted.

- **Northville-Lake Placid Trail:** Comments were unanimous in advocating the relocation of the NP Trail from Cedar River Road to the lands of the BRW. More detailed comments included descriptions of preferred routes, all of which generally ran near the southern border of the unit. A few people advocated keeping the trail east of Wakely and Metcalf Mountains to preserve the trailless character of the interior.

- **Other Trails:** Most people supported the marking of existing trails near Sagamore, as well as those to Sprague Pond, Slim Pond and Death Brook Falls. Some suggested that the marking of an old stage road that connects the Wilson Pond and Cascade Pond trails would provide a good hiking and snowshoeing opportunity. A few expressed concern that a trail around Sprague Pond could have adverse impacts on nesting loons. The support of one commenter for the marking of the trails near Sagamore was contingent on an analysis of the area's capacity to withstand use.

- **South Inlet:** A number of comments pertained to the use of motorboats and jetskis on South Inlet. For much of its length, the southeastern shore of South Inlet forms the boundary of the BRW. Though most comments supported a ban on motors, several urged that current conditions allowing motorboat use be continued, citing benefits ranging from public access to keeping the channel free of aquatic vegetation. Some suggested that conflicts between motorized and nonmotorized craft could be reduced by better enforcement of the law limiting speed within 100 feet of shore to five miles per hour. This issue is being addressed in the MRPWF UMP.

- **Reclassification:** One person suggested that the Golden Beach Campground septic system, presently part of the BRW, be formally joined with the campground through reclassification to intensive use.

DEVELOPMENT OF THE FINAL UMP

The Draft UMP was released for public review and comment on December 22, 2005. A second public meeting to present the draft UMP and receive public comments was held at the Adirondack Museum on February 7, 2006. Appendix 17 presents a summary of the comments received and Department responses to the major recommendations, questions and concerns.

Management Issues

In preparation for the task of devising management actions for the BRW and WMPA, the planning team reviewed the characteristics of the unit, from its natural resources and wilderness character to its cultural resources, boundaries, the structures and improvements maintained for public access and use, public use patterns and trends and administrative considerations. Then, in light of the management guidelines for wilderness and primitive areas, the team reviewed public comments and suggestions and developed a list of issues to be addressed by the plan. The issues listed below are addressed in Section 4, Proposed Management Actions.

GENERAL ISSUES

- **Natural Resources:** Compared with other Adirondack Forest Preserve management units, the wild character of the BRW and WMPA is affected by relatively few structures and improvements and low levels of public use. Especially in the trailless core of the unit surrounding Blue Ridge, natural processes operate relatively free of human influences. A large area of old growth forest occupies the central and southwestern part of the unit. What measures should be taken to preserve, enhance and restore the natural conditions of the water, air, soils, wetlands and the native plant and animal communities of the BRW and WMPA? Are there habitats of rare species that need protection? What measures should be taken to minimize the effects of public recreational use on natural resources?

- **Public Use:** Because of the relatively low level of recreational development and use in the BRW and WMPA, there are outstanding opportunities for solitude throughout the unit. What measures should be taken to assure that the public use of the BRW and WMPA will conform with APSLMP guidelines for the protection of natural resources and the recreational environment? In the context of the character of the unit and historic use patterns, what kinds and levels of use are appropriate?

- **Access:** Though there are relatively few official public access points, much of the unit is near or adjacent to public highways, and a number of unofficial access points are used by the public. No measures have been taken to provide access for people with disabilities. Is the present level of access to the lands of the BRW and WMPA appropriate? What measures should be taken to increase access where appropriate or to reduce access where necessary to protect wilderness resources? What measures should be taken to improve access for people with disabilities?

- **Cultural Resources:** The Wakely Mountain fire tower is listed on the New York State and National Registers of Historic Places. The remnants of roads and structures formerly part of the Great Camp Sagamore estate are included in Sagamore's National Historic Landmark designation. Within the guidelines of the APSLMP, what measures should be taken to protect and interpret the cultural resources of the BRW and WMPA?

- **Structures and Improvements:** There are relatively few structures and improvements, such as trails, primitive tent sites and lean-tos, within the BRW. What structures and improvements should be provided to accommodate public recreational access and use in ways that are compatible with the wild character of the area?

- **Nonconforming Structures and Uses:** A number of nonconforming structures and uses exist within the unit. Some must simply be removed. However the disposition of others, such as the Sagamore hydroelectric ruins and the Wakely Mountain fire tower structures, is subject to more complex analysis. The fire tower and associated structures within the WMPA have not been used or maintained for fire detection purposes for several years. How should the nonconforming structures and uses in the BRW and WMPA be addressed? Are the structures in the WMPA needed?

- **Illegal Activities:** Evidence of illegal motor vehicle use in the unit has been observed, though impacts have not been significant. There are occasional instances of tree cutting, littering and illegal camping. What measures should be taken to prevent illegal motor vehicle use and other illegal activities within the BRW and WMPA?

- **Public Use Information:** The Department has a good general sense of the types, levels and distribution of public use within the unit. However, detailed information is lacking. There are only three trail registers on trails leading to destinations in the unit. What measures should be taken to provide managers with a more accurate picture of public recreational use numbers, patterns and trends, as well as a better

measure of the expectations and interests of the public and how satisfied they are with their experiences of the BRW and WMPA?

SPECIFIC ISSUES

- **Wakely Mountain Fire Tower:** According to the APSLMP, once the fire tower is no longer needed, it should be removed, and the WMPA should be made part of the BRW. Should the fire tower remain? If so, should it be restored and open to the public? Is the tower needed for radio communications purposes? Would its retention conform with the APSLMP? Should the observer cabin and helipad remain? Is there a good alternative route for a trail to the summit? The proposal in some public comments to reclassify the part of the WMPA encompassing the fire tower and associated structures to wild forest, and the rest to wilderness, would require a revision of the APSLMP. Requests for revisions of the APSLMP are addressed by APA in consultation with the Department.

- **Sagamore Ruins:** Some structures formerly part of the Sagamore hydroelectric complex are relatively intact and could be considered nonconforming structures. However, the structures are part of Great Camp Sagamore's National Historic Landmark designation and are considered by Sagamore staff to be essential to their educational mission. The removal of the structures would be disruptive and expensive. Should the hydroelectric plant and other structures that once were part of the Camp Sagamore complex be retained? If so, what measures, if any, should be taken to protect and interpret them and make them safe for public access?

- **Solitude:** Should the presently high degree of solitude available in the BRW be maintained at current levels? If so, how?

- **Northville-Lake Placid Trail:** Should the NP Trail be relocated from Cedar River Road to the BRW? If so, what route should it take?

- **Other Trails:** Which if any of the existing unmarked trails in the BRW should be designated, marked and maintained? Should new trails be constructed?

- **South Inlet:** How should the use of motorized watercraft on South Inlet be addressed? The issue is important both for the BRW and the MRPWF.

- **Camp Sagamore Safety Zone:** An area around Camp Sagamore in which hunting and trapping are prohibited was created by regulation in 1976. Should the existing safety zone around Camp Sagamore be retained, modified or eliminated?

- **Classification and Reclassification:** In the context of existing Forest Preserve lands, is the boundary of the BRW in the right place? In the course of reviewing maps and records during the planning process, the planning team discovered some classification issues of a ministerial nature. A small parcel of Forest Preserve land containing the Cascade Pond trailhead is unclassified, the Golden Beach

Campground septic system is included within the BRW, and there is a small parcel of wild forest land east of the road between Sagamore Lake and Lake Kora whose boundary on the ground conforms to a lot line rather than a geographic feature. The classification or reclassification of any part of the Adirondack Forest Preserve constitutes an amendment to the APSLMP and is the responsibility of the APA, in consultation with the Department.

- **Vista Maintenance:** The trail to Sawyer Mountain ends at an overlook that is likely to become obscured if the continuation of limited tree and brush cutting is not permitted. Though the APSLMP does not provide express guidance about the establishment or maintenance of scenic vistas in wilderness or primitive areas, a Department policy provides for the maintenance of existing vistas in wilderness. Should scenic vistas be maintained?

Management Goals

After a list of planning issues was developed, the issues were analyzed in the context of wilderness management guidelines and public comment. In addition, the characteristics of the unit were reviewed in relation to adjacent public and private lands and the other wilderness areas in the Adirondack Park. This process resulted in the development of the following management goals for the BRW and WMPA. These goals then guided the development of specific objectives that, in turn, resulted in proposals for individual management actions. Specific objectives and management actions are presented in Section 4.

The major theme of these goals is to maintain the character of the BRW as a component of the Adirondack Forest Preserve that generally is more wild and presents more opportunities for a high degree of solitude than other areas.

- **Retain the relatively undeveloped character of the BRW, and maintain the trailless core of the unit as a plant and animal community nearly free of direct human influences.** With 11.5 miles of marked trails, three lean-tos and relatively few established tent sites, the BRW has a much less extensive system of official structures and improvements than other areas of the Adirondack Forest Preserve. Many miles of former roads and unmarked trails are lightly used for access to ponds or tent sites used during hunting season, but few penetrate far into the interior. The area surrounding the Blue Ridge is a large trailless area comprising a significant tract of old growth forest. The undeveloped character of the interior of the BRW contributes both to a recreational environment of solitude and the perpetuation of a natural plant and animal community where man's influence is not apparent. The relatively wild character of the area will be maintained by limiting the development of new structures and improvements and preserving the area's large trailless core.

- **Make solitude a major component of the recreational environment of the BRW.** Compared with other wilderness and wild forest areas, relatively few people visit the BRW. Visitors are very likely to experience solitude during their visits, even on

marked trails and at established tent sites, during all seasons. Instead of encouraging increased use, or passively allowing the level of use to increase over time to the full capacity of the area to withstand use without exceeding minimum standards, managers will work to preserve a recreational environment characterized by a high degree of solitude.

- **Protect archaeological sites from vandalism and address safety issues, but allow them to succumb to the forces of nature. Manage historic structures in accordance with applicable laws.** New York State Parks, Recreation and Historic Preservation Law sets forth requirements for the identification and preservation of cultural resources. However, the degree to which historic structures within wilderness and primitive areas may be protected is limited by the APSLMP. Cultural resources within the BRW and WMPA will be identified, protected and interpreted in accordance with applicable laws.

Capacity to Withstand Use

CARRYING CAPACITY CONCEPTS

The BRW and WMPA cannot withstand ever-increasing, unlimited visitor use levels without suffering the eventual loss of wilderness character. The challenge for managers is to determine how much use and what type of use the area, or particular sites within it, can withstand before the impacts of use cause serious degradation of the wilderness resource. A manager's most important responsibility is to work to ensure that a natural area's "carrying capacity" is not exceeded while 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 or 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 be allowed to visit an area such as the BRW and WMPA. Much research had shown that the derivation of such a number is not useful, 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, low levels of use can cause observable impacts. For example, in sensitive areas the elimination of ground vegetation at a tent site can become significant after only a few camping parties have occupied it. Once moderate use levels have removed nearly all the vegetation, large increases in use cause relatively little additional impact. It has been discovered that such factors as visitor behavior, site resistance and resiliency and type of use may actually be more important in determining the degree of impact than the amount of use, although the total amount of use contributes to a significant extent (Hammit and Cole, 1987).

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?" Because of the complex relationship between use and use impacts, the manager's job is much more involved than simply counting, redirecting, or restricting the number of visitors in an area. Professionally-informed judgements must be made so that carrying capacity is defined in terms of acceptable resource and social conditions. These conditions must be compared to real conditions, projections must be made, and management policies and actions must be drafted and enacted to maintain or restore the desired conditions. Influencing visitor behavior can require a well-planned, multi-faceted educational program. Determining site resistance and resiliency always requires research, often involving much time, legwork and experimentation. Shaping the types of use impacting an area can call not only for education, 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. The Department embraces this new approach, recognizing the ambitious scope of the work required to adopt it and subsequently implement needed management.

The shift in the focus of managers, 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, will be more effective in assuring that all areas of the Forest Preserve will, as required by the New York State Constitution, be "forever kept as wild forest lands," and that in the BRW and WMPA, the primeval character inherent in the APSLMP definition of wilderness will be retained. A central goal of this plan is to lay out a strategy for achieving an appropriate balance between resource protection and public use in the BRW and WMPA. This strategy reflects legal requirements, policy guidelines and established management principles and has directed the development of goals, objectives, and ultimately the management proposals which are detailed in Section 4.

PLANNING APPROACH

The approach to the development of a unit management plan for the BRW and WMPA involves a combination of two generally accepted wilderness planning methods: (1) the goal-achievement framework; and (2) the Limits of Acceptable Change (LAC) model employed by the U.S. Forest Service and other agencies.

The Goal-Achievement Framework

In wilderness areas, the Department is mandated by law to implement actions designed to realize the intent of the wilderness guidelines of the APSLMP. The goal-achievement framework will be used to organize this management plan to direct the process of determining appropriate management actions through the careful development of goals and objectives. Goals are general descriptions of management direction reflecting legal mandates and general conditions to be achieved or maintained in the wilderness area. Once articulated, the goals for the management of the BRW and WMPA will shape management objectives, which are statements of more specific conditions whose

achievement will be necessary to assure progress toward the attainment of the established goals. Objectives in turn will serve as criteria for deciding what management actions are needed.

General and specific goals proposing a long-term direction for the management of the BRW and WMPA are given in Section 3. In each category of management activity included in Section 4, the current management situation is assessed and assumptions about future trends and conditions are discussed. Proposed objectives describing conditions to be achieved on the way toward meeting long-term management goals are presented and individual actions to meet the objectives are proposed.

The goal-achievement framework provides an organized approach to planning that is effective in addressing the full range of issues affecting a wilderness area. However, the objectives developed in this approach usually do not identify specific thresholds of unacceptable impact on particular resources or give managers or the public clear guidance as to whether a restrictive management action is warranted in a particular situation. For significant management issues that require the resolution of conflicting goals, have the potential for unacceptable change and lend themselves to the development of measurable and attainable standards, the Limits of Acceptable Change process will be used.

The Limits of Acceptable Change (LAC) Process

The Limits of Acceptable Change (LAC) process employs carrying capacity concepts to prescribe--not the total number of people who can visit an area--but the desired resource and social conditions that should be maintained regardless of use. Establishing and maintaining acceptable conditions depends on explicit management objectives which draw on managerial experience, research, inventory data, assessments, projections and public input. When devised in this manner, objectives founded in the LAC process dictate how much change will be allowed, as well as how management will respond to change. Indicators--measurable variables that reflect conditions--are chosen and standards, representing the bounds of acceptable conditions, are set, so management efforts can address unacceptable change. A particular standard may be chosen to act as a boundary which allows for management action before conditions deteriorate to the point of unacceptability. The monitoring of resource and social conditions is critical. The LAC process relies on monitoring to provide systematic and periodic feedback to managers concerning specific conditions related to a range of impact sources, from visitor use to the atmospheric deposition of pollutants.

Though the LAC process is ideally suited to solving many management problems, it does not work in every situation. LAC is designed to help managers decide how best to address competing goals where there are concerns about the potential for unacceptable change. For instance, two goals of wilderness management are protecting natural conditions and providing public recreational access. Yet the promotion of recreational use could have unacceptable impacts to natural resources, such as the soils and vegetation in a popular camping area. The LAC process could be used to determine the thresholds of acceptable soil and vegetation impacts and what management actions would be taken to

protect resources from camping use. Issues that do not involve potential trade-offs do not lend themselves to LAC treatment. For example, managers do not need a process to help them determine how much motor vehicle use is acceptable in wilderness. Because existing wilderness guidelines and regulations explicitly prohibit all public motor vehicle use, it is clear that no amount of public motor vehicle use is acceptable.

The Department will identify all significant management issues affecting the BRW and WMPA and prioritize them. Issues suitable for the application of the LAC process will be selected. For these issues, the Department will implement the four major components of the LAC process:

1. The identification of acceptable resource and social conditions represented by measurable indicators;
2. An analysis of the relationship between existing conditions and those desired;
3. Determinations of the management actions needed to achieve and preserve desired conditions; and,
4. A monitoring program to determine whether objectives continue to be met over time.

The process involves 10 steps:

Step 1: Define Goals and Desired Conditions
Step 2: Identify Issues, Concerns and Threats
Step 3: Define and Describe Acceptable Conditions
Step 4: Select Indicators for Resource and Social Conditions
Step 5: Inventory Existing Resource and Social Conditions
Step 6: Specify Standards for Resource and Social Indicators for Each Opportunity Class
Step 7: Identify Alternative Opportunity Class Allocations
Step 8: Identify Management Actions for Each Alternative
Step 9: Evaluate and Select a Preferred Alternative
Step 10: Implement Actions and Monitor Conditions

Though generally the levels of human impact within the BRW and WMPA are relatively low, a number of management issues could develop within the BRW and WMPA that could be addressed by the LAC process. Such issues may be categorized as conflicts between public use and resource protection, conflicts between users, and conflicts between outside influences and the objectives for natural resource or social conditions within the unit. The capacity of the area to withstand use can be divided into three categories for which impact indicators can be chosen:

<u>Physical capacity</u> - May include indicators that measure visitor impacts to physical resources (e.g., soil erosion on trails, campsites and access sites) and changes to environmental conditions (e.g., air and water quality).

<u>Biological capacity</u> - May include indicators that measure visitor impacts to biological resources (e.g., vegetation loss at campsites or waterfront access sites) and changes in the ecosystem (e.g., diversity and distribution of plant and animal species).

Social capacity - May include indicators that measure visitor impacts on other visitors (e.g., conflicts between user groups), the effectiveness of managerial conditions (e.g., noncompliant visitor behavior), and interactions with the area's physical or biological capacity (e.g., the impacts of the sight of significant erosion on trails on the recreational experience of visitors).

The following list gives examples of indicators that could be used in assessing and monitoring conditions in the BRW and WMPA.

Physical capacity

- Extent of soil erosion on trails and at campsites
- Extent of air and water quality degradation caused by fossil fuel combustion[1]

Biological capacity

- Extent of unvegetated soil in camping areas and riparian areas near lakes and streams
- Diversity and distribution of plant and animal species

Social capacity

- Noise volume and frequency of aircraft overflights[1]
- Incidence and volume of late night noise at campsites
- Extent of illegal tree cutting for firewood near campsites
- Number of encounters with large groups on trails

The application of the LAC process will require a substantial commitment of staff time and public involvement. Because each Department office is responsible for several Forest Preserve management units, the full implementation of LAC for each unit will occur over a period of years. It will be important to prioritize the issues within each unit and focus management attention on the most significant issues first. Of the 10 steps of the LAC process, this plan implements steps 1, 2 and 3, which apply to all the resources and conditions of the unit. The application of steps 4, 5 and 6 to selected land resource issues is proposed for the next five years. Table 12 and Figure 12 actually represent a tentative jump to step 7. The specific allocation of opportunity classes will be confirmed after the completion of all preliminary steps.

Though LAC will not be fully implemented during the five-year scope of this plan, the plan is complete, organized according to the goal-achievement framework. It provides substantial resource inventory information, sets goals founded on law, policy and the characteristics of the area, identifies management issues, and lays out an extensive system of proposed objectives and actions designed to meet management goals. Once it is fully implemented, LAC will provide more detailed guidance to managers and the public

[1]*Though LAC could be useful in addressing this issue, obviously it is beyond the scope of a UMP.*

in the management of important issues. Ultimately a monitoring system will be put in place, and management actions will be revised and refined over time in response to the results of periodic evaluation to assure that desired conditions will be attained or maintained. LAC will be incorporated into the management of the BRW and WMPA as a fully-developed, science-based approach to protecting and managing the area's physical, biological and social resources.

The Capacity of the Blue Ridge Wilderness and Wakely Mountain Primitive Area to Withstand Use

The New York State Constitution, the APSLMP and other laws, regulations and policies provide general direction for the management of the BRW and WMPA by specifically prohibiting certain structures, improvements and uses and establishing general goals and guidelines for protecting natural resources and managing the types of facilities and uses that are permitted. The managers of the BRW and WMPA must apply these general guidelines and determine through the UMP process which structures and improvements will be constructed, retained or removed within the unit, and how much impact to the unit's natural resources and recreational environment will be tolerated.

The capacity of the BRW and WMPA to withstand public recreational use and other types of human influence is not a quality inherent in the unit that may be determined simply through an objective assessment of its physical and biological features and recreational conditions. While the levels of various types of impacts can be measured, the levels that are acceptable within the unit generally or at particular locations within it can only be determined through the development of goals and objectives reflecting desired conditions. This process should include the consideration of the management guidelines for wilderness and primitive areas and the natural resource and recreational characteristics of the unit in the landscape contexts of New York State and the Adirondack Park, and should be shaped by public participation in the planning process. The LAC process should be applied to specific issues for which the establishment of measurable standards is considered necessary to refine the application of management objectives.

The planning process for the BRW and WMPA has resulted in the development of goals that set the direction for long-term management. These goals form the basis for the development of objectives and actions for the unit's Land Resources, Air and Water Resources, Fisheries, Wildlife, and Recreational Environment.

PRESCRIPTIVE MANAGEMENT ZONES

The management goals developed for the BRW and WMPA apply to the entire unit. However, within the unit some variation in the level of human influence on natural resources and the recreational environment can be seen. In addition, the ecological communities within the unit vary in terms of their sensitivity to disturbance. An attempt to achieve uniformity in the conditions of the unit likely would involve the use of strict regulations and intrusive management techniques in the more attractive, accessible areas

that would require a significant management staff presence and reduce the freedom and spontaneity that visitors expect in a wilderness area. A more practicable approach might be to recognize and, within the bounds of the management guidelines for wilderness and primitive areas, accommodate a limited range of resource and social conditions. In the LAC process, this range of acceptable conditions is embodied in a series of opportunity classes, or prescriptive management zones. For each zone, statements of acceptable conditions are written, indicating the comparative levels of resource and social impact to be tolerated, as well as the intensity and intrusiveness of management control–the managerial conditions–to be applied. Together, the prescriptions for the resource, social and managerial conditions constitute the general management objectives for each zone.

In general, the social conditions in the BRW and WMPA are less variable than they are in other areas of the Forest Preserve. The character of the recreational environment appears fairly consistent among the area's designated access points, trails and camping destinations. These areas stand in contrast to the areas where access is not provided by designated trails. It appears appropriate, therefore, to divide the unit into two prescriptive management zones (Table 12, Figure 12). Zone 1 consists of all areas within 500 feet of parking areas, marked trails, mountain summits accessed by marked trails, and ponds and lakes accessed by marked trails. Zone 2 comprises all areas outside zone 1. Areas that are relatively sensitive to disturbance, such as wetlands and other areas of critical habitat, would be given appropriate management consideration within each zone, and may be thought of as mapping overlays. The allocation of opportunity classes represented in Table 12 and Figure 12 represent a jump to step 7 in the LAC process. These allocations should be confirmed after the completion of steps 1 through 6.

LANDS AND WATERS

Zone 1

The lands of the BRW and WMPA generally are very accessible from public highways. However, largely because there are few upper elevation vistas or interior ponds, the development of structures and improvements such as trails, lean-tos and primitive tent sites has been limited. Even at the ponds that are the unit's most popular camping destinations, relatively few tent sites have been developed. The area of the unit designated as zone 1, therefore, takes up a small percentage of the area of the unit. Public use

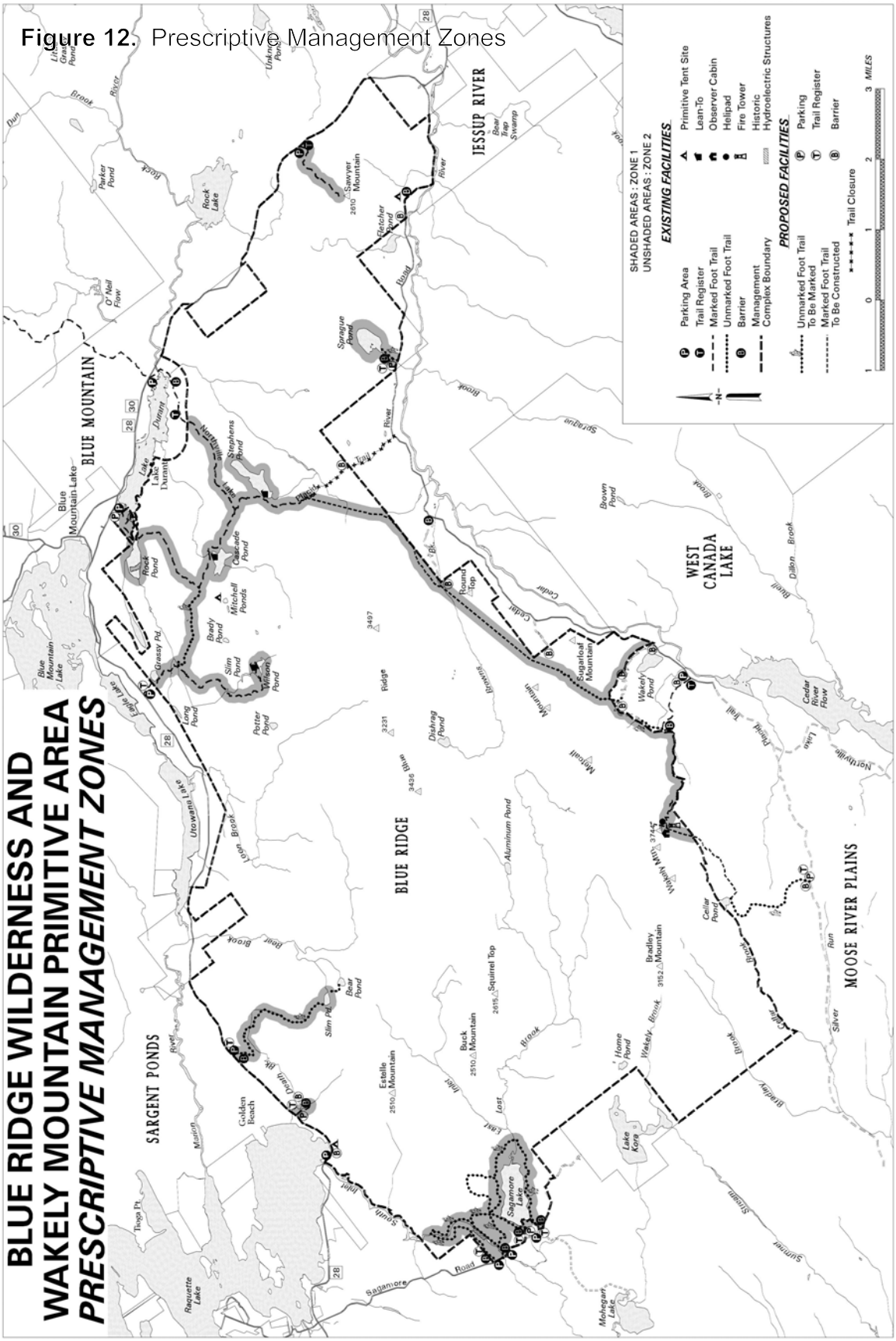
Table 12. Prescriptive Management Zones in the Blue Ridge Wilderness and Wakely Mountain Primitive Area

Zone 1	Zone 2
Description: Area within 500 feet of parking areas, marked trails, mountain summits accessed by marked trails, and ponds and lakes accessed by marked trails.	**Description:** All areas outside zone 1.

Zone 1	Zone 2
Acceptable Resource Conditions: Resource impacts low to moderate, restricted to limited areas of persistent vegetation loss and localized instances of minimal soil erosion, largely limited to parking areas, trails, summits, campsites and access points on shorelines. Impacts apparent to most visitors.	**Acceptable Resource Conditions:** Resource impacts very low to nonexistent, restricted to minor temporary loss of vegetation on occasional unmarked trails and undesignated interior tent sites. Impacts not apparent to most visitors.
Acceptable Social Conditions: Generally few, occasionally moderately frequent contacts with other parties on trails and at trail destinations. Camping out of sight and sound of others almost always possible.	**Acceptable Social Conditions:** Almost always no contact with other parties. Camping out of sight and sound of others always possible.
Acceptable Managerial Conditions: No on-site management of visitors unless necessary for resource protection, visitor safety, law enforcement or facility construction or maintenance. Little evidence of management staff. Education and indirect management methods preferred to manage visitor behavior. Regulation used for APSLMP compliance. Additional regulations used to maintain acceptable conditions only when less intrusive methods fail. Educational information and regulations communicated in advance of visitor arrival or through signs at the unit boundary. Structures and improvements constructed and maintained with minimal modification of natural site conditions. Existing structures and improvements modified or relocated where necessary to minimize impacts on wetlands and critical habitat. New structures and improvements located and constructed to minimize impacts on wetlands and critical habitat.	**Acceptable Managerial Conditions:** No on-site management of visitors unless necessary for resource protection, visitor safety or law enforcement. Education and indirect management methods preferred to manage visitor behavior. Regulation used for APSLMP compliance. Additional regulations used to maintain acceptable conditions only when less intrusive methods fail. Regulations and educational information communicated in advance of visitor arrival or through signs at the unit boundary. Public marking of trails and cutting of live vegetation on trails and tent sites prohibited.

impacts within the BRW and WMPA were described in the Public Use section. In summary, public use levels in all seasons are relatively low. Therefore, the direct impacts of use on land and water resources, including soil erosion and the disturbance of soils and vegetation on trails, soil erosion and damage to vegetation at lean-tos and tent sites, and the sedimentation and pollution of water bodies also are relatively low, with some exceptions. With the absence of summit destinations other than Wakely and Sawyer

Figure 12. Prescriptive Management Zones



Mountains, the marked trails of the unit generally traverse terrain with gentle to moderate slopes and are less susceptible to soil erosion caused by use than trails in other units having more trails to mountain summits. It is likely that increases in use and use impacts over the next five years will not be substantial.

Except at a few locations, the unit's trails, lean-to sites and tent sites generally could withstand higher use levels without sustaining increases in impacts on soils and vegetation to the extent that they would be judged by experienced managers to exceed wilderness standards. However, the goals and general objectives for the management of the BRW reflect an interest in preventing the unit's relatively high degree of naturalness from degrading. They are statements of the intent to maintain the unit's position near the pristine side of the recreational opportunity spectrum. Managers should strive to keep the existing relatively low levels of impact on soils, vegetative communities and wetlands from increasing significantly. Goals and objectives will be translated into measurable form when specific standards for acceptable levels of impact are developed.

The construction of trails, lean-tos and primitive tent sites tends to attract use and attendant use impacts. It is possible that the construction of new facilities within the BRW and WMPA would serve to disperse use to some degree and, by offering new hiking and camping opportunities, divert use and use impacts from existing facilities. But because it also is possible that the construction of new facilities could attract new use, overall use levels and use impacts could increase. The goal of maintaining the lands of the unit in a condition near the pristine side of the recreational opportunity spectrum will be achieved by limiting the construction of new facilities to those needed for appropriate access and resource protection. The unit's largely trailless interior will be kept free of marked and maintained trails. Maintaining facility development at a relatively low level is likely to limit the rate of growth in use numbers, and so will set the capacity of the BRW and WMPA to withstand use at a level lower than other wilderness areas having more extensive infrastructures.

Few areas within the unit have sustained extreme use impacts to physical and biological resources, or are likely to do so in the near future. However, impacts are evident wherever use has occurred, and in some places, continued use may cause impacts to exceed wilderness standards. Places where observed impacts are significant in the context of the objective of maintaining a high degree of naturalness should receive immediate management attention, even though specific standards have not yet been established. For instance, the trail to the summit of Wakely Mountain has sustained significant soil erosion. Erosion on the final mile is largely due to the steepness of the trail. Without immediate action, the trail could not withstand the physical impacts of continued use, even at presently moderate levels. Ongoing soil erosion impacts could be addressed through the installation of drainage structures, but might best be mitigated through the investigation of a new route over more gentle terrain. Though most of the other trails in the unit cross fairly gentle terrain with few steep grades, significant impacts to soils and vegetation occasionally are evident, especially in wetland areas. The need for bridging or trail relocation to protect resources should be determined and appropriate actions should be taken as soon as possible to minimize impacts. Noncompliant behavior, such as

camping too close to the shores of ponds, has resulted in soil erosion, vegetation loss and visual impacts. Illegal tent sites should be closed and new sites in suitable locations designated. Law enforcement should focus on sensitive areas.

Zone 2

As in most wilderness areas, public use outside the system of marked trails and their destinations within the BRW and WMPA generally is very low. Therefore, use impacts within the area designated as zone 2 are minimal. However, unmarked trails have developed through use, mostly by hunters and anglers following former roads. Probably the unmarked trails most frequently used, excluding those proposed for adoption as official trails[1], are those that follow former salvage roads constructed after the 1950 blowdown. Several of these roads enter the northwest portion of the unit from various points along Route 28. Unmarked trails provide access for day hunting and lead to interior tent sites used mostly during the big game hunting season.

To meet the objective of maintaining very low levels of resource impacts in zone 2, management staff should focus monitoring, education and enforcement efforts on identifying and mapping trails and tent sites and preventing trail marking, vegetation cutting , the construction of structures such as bridges and camping shelters, and the storage of personal property. The application of the LAC process to trails and tent sites should include zone 2.

Application of the LAC Process

Because the impacts of public use on the land resources of the BRW and WMPA are relatively low, other units sustaining more severe impacts will take priority in the application of the LAC process. In the BRW and WMPA work during the next five years will concentrate on the development of a list of indicators and an inventory of trail and tent site conditions, mostly in zone 1, to establish a baseline for monitoring, and the selection of standards to quantify management goals and objectives. The inventory will involve an initial measurement of indicators such as:

Trail Condition Indicators

- Depth of trail tread compared to surrounding grade at fixed locations every 500 feet along trail.
- Width of trail tread at fixed locations every 500 feet along trail
- Number and development of user-created trails
- Number of locations, and at each location, distance of trail where drainage is not controlled and erosion is active

[1]*The presently unmarked trails around Sagamore Lake, as well as the Wilson Pond-Cascade Pond crossover trail and the trails to Slim Pond, Sprague Pond and Death Brook Falls are proposed for adoption as official trails, and therefore included in zone 1.*

- Number of locations, and at each location, distance along trail and width of disturbance where standing water/wetlands requires hikers to walk around

Tent Site Condition Indicators

- General inventory indicating the number of tent sites too close to water, trails, roads and each other
- Frissell campsite condition class (one of five classes related to the degree of disturbance to vegetation and soils)
- Area of barren core
- Distance of down firewood from fire ring

LAC standards for the indicators, once selected, will be the targets against which the results of periodic monitoring will be compared. Future effort will focus on the development of management prescriptions to prevent standards from being exceeded.

AIR AND WATER QUALITY

As reviewed in Section 2, the air quality of the Adirondack region is generally good to excellent. However, emissions of pollutants from sources outside the region cause haze, which often limits visibility, and acid precipitation, which affects terrestrial and aquatic ecology in the region including the BRW and WMPA. The air quality impacts of activities within the unit, such as the building of campfires by visitors, are limited and localized. Smoke from campfires is not known to have significant ecological effects. The current and anticipated impacts of public use on the air quality of the BRW and WMPA are not considered sufficiently significant to warrant the application of the LAC process.

Acid precipitation and the deposition of heavy metals such as mercury and lead have had significant effects on Adirondack ecosystems, especially upper elevation forests and surface waters. Though acid precipitation has not had significant effects on the waters of the BRW and WMPA to date, they are subject to the continuing effects of atmoshpheric deposition. Most of the ponds in the unit have an acid neutralizing capacity less than 50 μeq/L and are considered susceptible to episodic acidification that could threaten aquatic life. Recent studies of selected waters outside the BRW by the Adirondack Cooperative Loon Program have revealed the presence of mercury in loons. Loons captured on Lake Durant between 1998 and 2000 were found to have moderately high blood mercury levels. Research into the relationship between the diet of loons and mercury contamination is continuing, with the goal of understanding the effects of mercury on the reproduction and survival of the species. A report on lead levels is forthcoming. The effects of acid precipitation and the atmospheric deposition of metals are considered significant threats to the ecosystems of the BRW and WMPA and should be addressed through appropriate regulation of pollution sources. State and Federal monitoring programs will continue to track the effects of efforts to improve air quality in the Northeast.

Possible direct impacts of the recreational use of the BRW and WMPA on the water quality of the unit include the improper disposal of human waste and refuse, and washing in streams and ponds. Indirect impacts such as soil erosion and sedimentation could result from repeated use of specific sites near surface water for day use and camping. Public use impacts on the quality of BRW and WMPA waters do not appear to be significant. Nevertheless, to meet general Forest Preserve management guidelines and the goals for the management of the unit, no avoidable impact should be tolerated. Managers should take actions necessary to minimize and, where possible, prevent use-related water quality impacts. Because no locally-caused water quality impacts are considered acceptable, the LAC process will not be applied to this issue.

FISHERIES

Department angling regulations are designed to preserve fish populations by preventing over harvest. In addition to angling regulations, the relative remoteness of ponds from roads in the BRW serves to greatly limit use.

Under existing regulations, trout populations are capable of withstanding current and anticipated levels of angler use. Decades of experience on Adirondack trout ponds have shown that the invasion of competing species is much more detrimental to trout abundance, size, and natural reproduction than is angling.

Angling use within the Blue Ridge Wilderness is relatively light not only due to remoteness, but also because motor use is prohibited. Anglers must portage canoes or inflatable rafts for several miles to fish many ponds due to a lack of open shoreline. Only Sagamore Lake is readily accessible via larger car top boats or skiffs. Trails lead to all unit trout waters except Lower Mitchell Pond.

In certain instances, over fishing, or more accurately, over harvest, may indeed contribute to a reduction in the numbers of large trout. However, brook trout, especially in streams, reach sexual maturity at very small sizes (smaller than what most anglers consider "keeping" size). Consequently, we are not aware of the existence of any examples of waters in which regulated harvest has led to reproductive failure. If necessary, Department fisheries staff have the regulatory authority to enact more restrictive harvest regulations.

Because angler use of the streams in the BRW is generally light, the brook trout populations which they support can sustain anticipated harvest levels without impact to their capacity to maintain themselves naturally. Existing regulations are adequate to protect the stream resource, as they are for the warmwater species found in two BRW lakes.

Angling use of area trout waters peaks in May with minor usage occurring in the fall. Trout angling diminishes greatly in July and August when recreational/camping use of area ponds by non anglers would be highest.

Fisheries files make no mention of user conflicts related to angling on any unit waters. Neither have there been reports of deteriorating trail conditions due to angler use. The NP Trail, a popular hiking route, provides access to Stephens Pond and a good spur trail off the NP Trail leads to Cascade Pond. It is likely that far more recreational hikers utilize these trails than anglers. The trail to Sprague Pond (1,500 feet) is a former unpaved road with an elevation change of less than 30 feet from Cedar River Road parking area to the pond.

WILDLIFE

Current levels of consumptive (i.e., hunting and trapping) and non-consumptive wildlife uses are not expected to significantly impact wildlife populations in the BRW and WMPA. The inaccessibility of much of the unit substantially reduces the potential for overharvest of some furbearer species (e.g., river otter, fisher, and American marten) and provides a "reservoir" that ensures that harvests are sustainable over time.

Although defining the amount and type of use that the area can withstand before impacts of such use caused degradation to the wildlife resource would be a significant challenge, considering relative differences in wildlife or community sensitivities to disturbances could be useful for recreational planning. Endangered, threatened, and special concern wildlife species, critical habitats, and significant ecological communities should receive primary attention during planning efforts, because their capacity to withstand use is likely less than that for more abundant wildlife species and common habitats and communities. Furthermore, impacts to these resources due to our limited understanding of their capacity to withstand use could be much more serious than for other more common resources.

Several areas within BRW and WMPA should receive careful consideration during planning efforts, including: 1) the northern periphery of the unit where historical deer yards (but see Critical Habitat section) and potential spruce grouse habitat have been identified; 2) high-elevation areas providing habitat for Bicknell's Thrush; and 3) shorelines of lakes and ponds where common loons nest.

Guidelines for Protection of Deer Wintering Areas In Wilderness

Research on wildlife responses to cross-country skiing and foot travel during winter is limited. Studies conducted on mule deer (Freddy et al. 1986) and elk (Cassirer et al. 1992) suggest that these species can be disturbed by these activities. However, when planning the location of recreational trails, general guidelines for protecting deer wintering areas can be followed which should reduce the potential for disturbance.

Activities which substantially diminish the quality or characteristics of the site should be avoided, but this does not mean human use is always detrimental. Pass through trails, and other recreational uses can be compatible with deer wintering areas if they are carefully considered. Recreational planning which affords protection of core sections and avoids

fragmenting travel corridors are acceptable in many situations. Certain types of recreation such as cross-country skiing are not presently considered to significantly impact deer yards in an overall negative way, particularly if the traffic along trails is not prone to stopping or off-trail excursions. 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 cross-country ski use can increase the energy demands of deer within the yard due to increased movement.

In summary, general guidelines for protecting deer wintering areas in wilderness include:

- Avoiding placement of heavily used ski trails through core segments of deer yards to reduce disturbance associated with skiers stopping to observe deer.
- Avoiding placement of trails through core segments of deer yards, if trail sections would connect with or run close to densely populated areas and provide access to free-roaming dogs.

Guidelines for Protection of the Adirondack Subalpine Forest Bird Conservation Area

Lands above 2800' in the BRWA and WMPA are part of the Subalpine Forest Bird Conservation Area (BCA) and are subject to relatively stringent regulations and use limitations. Trees may not be cut, public access is limited to foot travel, and administrative access by motor vehicle, which may occur only in emergencies subject to strict guidelines, is impracticable. Nevertheless, some types of structures and improvements are permitted, and construction and maintenance activities, especially those involving motorized equipment, have the potential to disturb the nesting activities of upper-elevation birds such as Bicknell's thrush. Whenever possible, routine maintenance should be planned so that it can be completed outside of the normal nesting season for Bicknell’s thrush. Should maintenance be needed during this period, the use of nonmotorized equipment would help to minimize impacts. If the use of motorized equipment in accordance with Department policy is necessary, it will be minimized. The use of motorized equipment in the construction of new structures and improvements, if necessary, will occur during off-peak seasons and outside the breeding season for Bicknell’s thrush, with the written approval of the Commissioner, as required by the APSLMP.

Bicknell’s thrush, a species of special concern in New York State, is a known breeder above 2800' in the BRW and WMPA. While no direct research has occurred on this species in the BRWA, research from Vermont studies are relevant for informing management decisions in the Adirondacks. According to a Vermont Institute of Natural Science (VINS) report (Rimmer et. al. 2005), “The earliest known arrival date of a breeding [Bicknell’s thrush] male in Vermont is 15 May, of a female 23 May.... Mating activities probably begin shortly after female arrival, as evidenced by frequent singing and calling throughout the day in late May and early June.... The earliest confirmed nest

construction date in Vermont is 1 June.... In Vermont, 71% (*n* = 89) of clutches are initiated in the first 3 weeks of June.... Known Vermont fledging dates range from 3 July-3 August...". A VINS report applying the results of research in Vermont ski areas to Whiteface Mountain (Rimmer et. al. 2004) recommended that work related to the construction of an expansion of the ski area occur before May 15 or after August 1. Authors of the report confirmed that the timing of breeding behavior in the Adirondacks is almost identical to that observed in Vermont (Rimmer, McFarland, personal communication.)

To assist trail crews in the formidable task of removing blowdown from the hundreds of miles of trails on Forest Preserve lands, they are permitted to use chainsaws in wilderness during the low-use period between April 1 and May 24 of each year, as approved by Commissioner Peter Berle in an August 30, 1976 memorandum. The only trails in the BRW and WMPA that enter the Adirondack Subalpine Forest BCA are the existing and proposed trails to the summit of Wakely Mountain. Therefore, the extent of chainsaw use in annual maintenance activities within the BCA is limited and localized. Because the snowpack usually does not disappear from the upper elevation section of the Wakely Mountain trail before May, there is seldom an opportunity to start blowdown removal before May 15, the date on which the first Bicknell's thrush males may be arriving on the mountain. However, the first females are not likely to arrive long before the May 24 closure of the allowable period of chainsaw use. The work seldom takes more than a day, and crews proceed along the trail as quickly as possible. Therefore, because all chainsaw use would occur before the likely beginning of most mating activity, and because the duration of the potential disturbance at any location on the trail is limited, the potential impact of chainsaw use for blowdown removal on the breeding success of Bicknell's thrush is not likely to be significant.

Based on this information about Bicknell's thrush breeding behavior, blowdown removal using chainsaws will continue to occur until May 24, although every attempt will be made to minimize the use of chainsaws and use cross-cut saws, bow saws, axes and clippers during this period.

Construction activities within the BCA other than brushing and blowdown removal will occur after August 1 and before May 15. The use of helicopters also will occur after August 1 and before May 15, except in emergencies.

RECREATIONAL ENVIRONMENT

The levels of public recreational use and use impacts in the BRW and WMPA generally are low throughout the year. Therefore, the unit offers a recreational environment in which visitors are likely to enjoy experiences in all seasons characterized by a high degree of solitude. While opportunities for solitude generally are abundant on marked trails and designated tent sites and lean-tos on lakes and ponds (zone 1), opportunities for solitude are greatest in the unit's trailless interior (zone 2). The goals and objectives proposed for the unit reflect the intention to attempt to preserve currently high solitude levels rather than permit the quality of the recreational environment to degrade to the

limits of acceptability. Therefore, the use capacity of the area from the social perspective is less than in other Forest Preserve units, where more trails and higher levels of use are provided for. This general statement eventually will be refined through the application of the LAC process by involving the public in setting detailed standards for measurable indicators of the quality of the recreational environment.

The goal of preserving the relatively natural character of the unit by minimizing the establishment of new trails will support the goal of limiting the impacts of use on the wilderness recreational experience. The use of existing trails and their day use and camping destinations will be managed by measures such as limiting trailhead parking capacity, limiting the number of tent sites on ponds, and providing information to potential visitors designed to promote appropriate use.

Locations within the unit where observed impacts to the recreational environment are significant in the context of the objective of maintaining a high degree of solitude should receive immediate management attention, even though specific standards have not yet been established. The first action to address the recreational environment within the unit should be to close tent sites that do not meet APSLMP guidelines for shoreline setback or separation distances.

Application of the LAC Process

Because the impacts of public use on the recreational environment of the BRW and WMPA are relatively low, other units sustaining more severe impacts will take priority in the application of the LAC process. In the BRW and WMPA work during the next five years will concentrate on an inventory of a preliminary list of indicators in zone 1 to establish a baseline for monitoring, along with the development of a complete list of indicators and the selection of standards to quantify management goals and objectives for social conditions.

Preliminary Social Condition Indicators

- Average number of trail register entries per day by season
- Average size of party signing in to trail registers
- Number of parties per week larger than 10 signing in to trail registers by season

Potential Social Condition Indicators

- Number of encounters on the trail by number of groups and total number of people
- Number of groups of 10 or more on the trail
- Number of other groups camping within sight and sound
- Number of pieces of litter at tent sites

LAC standards for the indicators, once selected, will be the targets against which the results of periodic monitoring will be compared. Future effort will focus on the development of management prescriptions to prevent standards from being exceeded.

Section 4 – Proposed Management Actions

This section of the plan organizes the various management topics of the unit into the following issue areas: bio-physical resources, land protection, administration, facilities, cultural resources, public use, access, nonconforming uses, regulations, education and interpretation, and research. For each topic, present conditions and assumptions are presented, followed by management objectives and proposed management actions. All specific objectives and proposed actions are consistent with the management guidelines and principles and the general management objectives outlined above.

Bio-Physical Resources

WATER

Present Conditions and Assumptions

The Adirondack Lakes Survey Corporation has conducted studies of Adirondack lakes and ponds since the early 1980s, with an emphasis on the effects of acid precipitation. ALSC has gathered information from seven of the ponds in the BRW. The Bureau of Fisheries routinely conducts biological surveys of area waters. Though the effects of acid precipitation on the waters of the unit have not been substantial, acid precipitation poses a continuing threat to aquatic life in the unit. Atmospheric deposition of other pollutants, such as mercury and lead, continues to affect the Adirondack region. Recent studies by the Adirondack Cooperative Loon Program have documented high mercury concentrations in loons, giving evidence of significant bioaccumulation of mercury in aquatic ecosystems. Though none of the waters sampled was in the BRW, loons captured in Lake Durant were found to have moderately high blood mercury levels.

The Adirondack Effects Assessment Program (AEAP) was established in 1994 with funding from the United States Environmental Protection Agency to the Darrin Fresh Water Institute, a research center of the Rensselaer Polytechnic Institute. The program was designed to provide chemical and biological data to evaluate the effectiveness of the 1990 amendments to the Clean Air Act. The objective is to study the interactive relationships between abiotic and biotic factors in a food chain-directed approach. Study collaborators represent State, Federal and university investigators, including the Darrin Fresh Water Institute, the State University of New York at Oswego and Syracuse, the Department, the Academy of Natural Sciences in Philadelphia, Marist College, the New York State Museum Biological Survey, the United States Geological Survey, and the University of Maryland.

During 2001 scientists from the Division of Water began a study into the effects of acidic deposition on headwater streams in the southwest Adirondacks. Study monitoring includes continuous stream flow measurement and event-based water quality sampling for three adjacent stream catchments in the Moose River Recreation Area and Blue Ridge Wilderness: Silver Run Brook, Cellar Brook, and Bradley Brook, which range in pH from circumneutral to acidic. Detailed stream comparisons as well as trend analyses are

performed for selected analytes: pH, acid neutralizing capacity, conductivity, anions (SO_4, NO_3, chloride), cations (Ca, Mg, Na, K), dissolved silica, and dissolved organic carbon. Results of study investigations will be summarized in AEAP reports and other publications, as appropriate.

No studies have been conducted to determine the effects of recreation use on water quality in the BRW and WMPA. As focal points for visitation, streams, springs, lakes, ponds and wetlands sustain more disturbance from recreational use than upland forest areas. Current levels of use within the unit are relatively low, and the water quality impacts of use have not been significant. Use levels and associated impacts are not expected to grow substantially in the next five years. Nevertheless, because the presence of water-borne pathogens is associated with wildlife as well as human activity, it is likely that water drawn from natural sources for drinking and cooking will continue to pose a health hazard to visitors. Because no locally-caused water quality impacts are considered acceptable, the LAC process will not be applied to this issue.

Objectives

- Tolerate no impacts to the quality of surface water or groundwater caused by public use or management actions within the unit.
- Protect the presently high quality of surface water and groundwater within the BRW and WMPA from human influences originating outside the unit.

Actions

- Protect surface waters from soil erosion caused by recreational use through the proper siting of tent sites, lean-tos, parking areas and water access trails. Relocate improperly located tent sites, lean-tos, parking areas and trails and stabilize closed sites through the installation of drainage structures appropriate in wilderness and revegetation with native plants.
- Arrest ongoing soil erosion associated with existing structures and improvements not to be closed or relocated through the implementation of water control measures appropriate in wilderness.
- Relocate lean-tos, pit privies, and non-designated tent sites away from water. Lean-tos must be set back at least 100 feet. The minimum setback for non-designated tent sites and pit privies is 150 feet.
- Close and rehabilitate lake shore and streamside areas that have been impacted by bank erosion caused by recreation use.
- Incorporate available biological survey work in all water related planning activities.
- Continue to monitor activities under existing Department rules and regulations on adjacent lands, especially timber harvesting and road building, that have the potential to impact BRW and WMPA waters.
- Advise the public through information and education programs to treat all water for *Giardia lamblia* prior to consumptive use.
-

SOIL

Present Conditions and Assumptions

Detailed soil maps are not available for the BRW and WMPA. Broad soil types, accurate to an area of about 40 acres, were delineated on aerial photographs by the USDA Soil Conservation Service. Interpretations have not been completed for each soil type. Little information has been documented on wide-spread soil loss and deposition, except that there are sites where soil disturbances on trails, shorelines and tent sites require rehabilitative actions. Trail widening, trail use during wet weather and camping too close to sensitive riparian areas are contributing factors. Trail maintenance funds to control erosion are needed.

Objectives

- Keep soil erosion caused by recreation use within acceptable limits that closely approximate the natural erosion process.
- Minimize instances of soil compaction from human activity where the maintenance of natural vegetative cover is precluded, except at trailheads and on developed trails.

Actions

- Correct undesirable conditions by rehabilitating disturbed areas or relocating use to more durable sites.
- Relocate trails, designated tent sites and lean-tos which are less than 100 feet from water where necessary to reduce sedimentation and contamination of water.
- Target trail maintenance to heavily eroded trails; develop a priority list based on resource need rather than on user convenience.
- Request voluntary compliance in seasonal closures of high elevation trails and certain low elevation trails during periods of wet weather, usually from November 1 to December 15 and April 1 to May 15, or at appropriate times set by the area manager.

VEGETATION

Present Conditions and Assumptions

Wilderness ecosystems are those managed to maintain their primeval character and influence, regardless of their current or historical condition (Hendee and Dawson, 2002). Though part of the area of the BRW was affected by logging before the land was acquired by the State, the wild character of the affected area has largely been restored. Since its inclusion within the Forest Preserve, the vegetated landscape of the BRW and WMPA has been altered by natural forces such as wind, fire, insects and disease. Ecosystem changes resulting from natural processes are inherent in the dynamic quality

of the wilderness condition. However, actions such as the extensive salvage logging permitted after the 1950 Blowdown drastically alter the course of natural processes and should never be permitted.

Significant ecological communities known to exist within the unit include areas of old growth forest, especially the large area of balsam flats in the southwestern part of the unit, and numerous wetland communities. Natural plant community succession, especially in the aftermath of natural disturbances such as windstorms, results in changes in the occurrence and distribution if plant species, as well as the animals and other organisms that depend on them, over time. No rare plant species has yet been identified within the unit. Should rare species or communities be discovered, appropriate actions should be taken to protect them from human activity. However, in keeping with a major goal of wilderness management, natural processes that might result in the elimination of a rare species or community should be permitted to operate without intervention.

Vegetation in the unit has been affected in areas subject to concentrated recreational activity, such as trail corridors, the shores of streams and ponds and mountain summits. Recreation during wet weather, typically late fall and early spring, exacerbates soil disturbance, erosion and plant loss. The construction and maintenance of the structures and improvements in the unit is conducted with the intent of minimizing impacts to vegetation. Foot trail maintenance involves the removal of fallen trees, brushing and occasional tree pruning . Occasionally foot trail bridges are constructed from trees cut near bridge sites when the sites are so far from trailheads that hauling in bridge materials from outside the unit is not feasible. Trees are cut in conformance with policy LF-92-1.

INVASIVE PLANTS

By APSLMP definition, a wilderness area ". . . is protected and managed so as to preserve, enhance and restore, where necessary, its natural conditions . . ." The APSLMP also provides that, "The primary wilderness management guideline will be to achieve and perpetuate a natural plant and animal community where man's influence is not apparent." The potential establishment of invasive plants in the BRW and WMPA is considered a significant threat to wilderness management goals, because invasive plants would alter the natural conditions of the unit and interfere with the perpetuation of its natural plant and animal communities. In addition, the introduction of a population of invasive plants may be seen as an indirect but potentially dramatic result of human influence. Though a management action to remove a population of invasive plants would constitute an exercise of direct human influence, a limited and targeted action would be justified in the service of wilderness goals. A single instance of plant removal would be much less apparent than the continual expansion of an invasive plant population permitted to flourish as a permanent part of the wilderness ecosystem.

Any action to eradicate terrestrial invasive plants 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 the Department 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 Invasive Plant Work Plan will provide protocols for implementing best management practices (BMPs) on State land (Appendix 12 describes BMPs for purple loosestrife, Japanese knotweed, common reed and garlic mustard). 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 also will describe a process by which the Department may enter into stewardship agreements to facilitate individuals or groups seeking to manage terrestrial invasive plant species on State lands using the listed BMPs, including herbicide use, under 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 BMPs and actions.

Prior to implementing containment or eradication controls, terrestrial invasive plant infestations occurring within the BRW and WMPA need to be assessed on a site-by-site basis. The geophysical setting and the presence or absence of sensitive native flora within or adjacent to the targeted infestation often predicts the BMPs and limitations of the control methodology. Infestations occurring within specific jurisdictional settings may trigger a permitting process, as do most terrestrial infestations occurring in aquatic settings. The species itself often dictates whether manual management controls, such as hand-pulling or cutting, or the judicious, surgical application of herbicides is warranted in order to best control the species in a particular setting. No single BMP guarantees invasive plant containment or eradication. Many infestations require multiple, seasonal control efforts to reduce their density and biomass. Adaptive management protocols suggest that implementation of integrated control methodologies may provide the best overall efficacy at specific infestations.

All management recommendations must be based on knowledge of non-native invasive species present within the 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. Documented populations of terrestrial and aquatic invasive plant species are shown in Appendix 20, Map 3.

Many, if not all, invasive plant infestations within a Forest Preserve area will have multiple transport and distribution vectors or threaten sensitive communities. Minimizing the spread of newly documented and immature infestations before they have the chance to become established should be a priority management action.

No aquatic plant occurrences are documented within the unit, so no control efforts are required at this time. However, ongoing inventory is required to detect new invasive plant occurrences.

A rigorous educational campaign would help prevent the transport of aquatic invasive species. 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 into or out of the unit. Additional research and collaboration

among partners and stakeholders would facilitate the development of an appropriate, effective and approved prevention and integrated plant management plan.

The spread of new invasive plant infestations may be prevented through rapid response techniques. 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. Facilities and activities within the unit may influence invasive plant species introduction, establishment, and distribution throughout and beyond the unit boundaries. These facilities and activities are likely to serve as hosts for invasive plant establishment. For instance, aquatic invasive species may be transferred between waters by hitchhiking on motor vehicles, boats, boat motors, boat trailers, sampling equipment, measuring and weighting devices, monitoring equipment and miscellaneous accessories.

Restoration of sites where invasive plant management occurs is critical to maintain or enhance historical ecological function and structure. Restoration should incorporate the best available science to determine effective techniques and the use of appropriate native or non-invasive plant species for site restoration.

Objectives

- Allow natural processes to determine the course of native plant community succession.
- Prevent the establishment of invasive plants to protect native communities, and take appropriate actions to eliminate populations of invasive plants where they are found.
- Preserve and protect native ecological communities and sensitive, rare, threatened and endangered species from the effects of human activity inside and outside the unit.
- Educate the public about the values of undisturbed plant communities.
- Manage public recreational use to minimize impacts to vegetation.
- Minimize impacts to vegetation in the construction and maintenance of structures and improvements.

Actions

- Conduct a comprehensive inventory of the ecological communities and the rare, threatened and endangered plant species within the unit.
- Educate researchers about the need to obtain TRPs and share the results of research with the Department.
- Include information about forest history and the values of undisturbed plant communities in the unit brochure and other Department information and education efforts.
- Review available information about the occurrences of ecological communities and plant species in preparing project work plans to insure that projects will have

minimal impacts on native vegetation, with particular emphasis on significant communities and sensitive, rare, threatened and endangered species.

- Emphasize information and education as the primary means to reduce recreational impacts to vegetation.
- Revegetate areas significantly disturbed by recreational activity or administrative actions, such as construction and maintenance projects and the removal of nonconforming structures, with native plant species suitable for site conditions.
- Enter into partnerships to facilitate containment and eradication of invasive plants occurrences within the BRW and WMPA through stewardship agreements and temporary revocable permits (TRPs).
- Conduct a complete inventory of the BRW and WMPA to identify aquatic and terrestrial invasive plant threats. Supplement existing inventories with formal, systematic inventories and informal inventories conducted during routine operations. Invite assistance from volunteers to actively study the unit and report on invasive species presence, location and condition.
- Implement a continuum of early detection inventories in the unit. Work with APIPP staff to conduct comprehensive early detection inventories for the presence of invasive plant species at all trails, parking areas, barriers, existing facilities, Cedar River Road and Sagamore Road.
- Inventory all waters with public access for the presence of aquatic invasive plants.

- Inventory Forest Preserve campgrounds for invasive plant establishment on a yearly basis. Monitor staging areas of spring clean-up debris and soils.
- Take immediate action to eradicate or contain all "easy to contain – low abundance" terrestrial and aquatic invasive plant infestations within the unit through the application of BMPs. Implement rapid response if aquatic invasive plant infestations occur by hand-pulling plants according to BMPs and the guidelines set forth by the Adirondack Park Agency's "Advice on the Hand Harvesting of Nuisance and Invasive Aquatic Plants."
- Implement appropriate BMPs at the encroaching Japanese knotweed infestations occurring beyond the southern, jurisdictional right-of-way of State Route 28 near reference marker 28-2209-1267.
- Collaborate with DOT to eradicate parent stands of Japanese knotweed that occur within and beyond the maintained rights-of-way of Durant Road and State Route 28/30 near their intersection.
- Implement perpetual Early Detection/Rapid Response protocols in probable locations of invasive plant introductions, such as campgrounds, day use areas, parking areas, boat launches and horse trails.
- Incorporate protocols to minimize the introduction and transfer of invasive plant species during routine operations, such as construction and maintenance projects, and historic and emergency maintenance activities. For instance, in construction and maintenance projects, use only soils, straw, seed or other stabilization or cover materials that are certified as weed-free.
- Incorporate terrestrial invasive species management actions into work plans at affected Forest Preserve campgrounds. Make necessary refinements in routine maintenance practices, such as raking and the use of onsite spoils areas, in order

to minimize the spread and redistribution of invasive plants within or beyond the campground boundaries.

- Train Department trail maintenance staff and staff at Forest Preserve campgrounds on invasive species identification, manual management practices, safe storage and the proper disposal of harvested plant material.
- To prevent the transfer of aquatic invasive species between waters, educate personnel performing field sampling to thoroughly inspect and clean motor vehicles, boats, boat motors, boat trailers, sampling equipment, measuring and weighting devices, monitoring equipment and miscellaneous accessories between routine operations.
- Post aquatic invasive species signage at all places where the public may gain access to water.
- Incorporate invasive species education in staff training and citizen licensing programs for hunting, fishing and boating, through signage, brochures, and identification materials, and in information centers, campgrounds, community workshops and press releases.
- Include guidelines to prevent the introduction and transport of invasive species in licensing, registration and permitting information distributed by the Department to fishing tournament applicants.
- Restore sites where invasive plant management occurs using appropriate native or non-invasive plant species.

WILDLIFE

Present Conditions and Assumptions

While all of the objectives and management actions outlined below are important, a management priority should be placed on increasing our understanding of the occurrence and distribution of many wildlife species and their habitats on the BRW and WMPA. This priority is reflected under the list of potential management action projects, denoted by letters, outlined below.

Objectives

- 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 and human use of the area.
- Perpetuate, support, and expand a variety of wildlife recreational opportunities, including sustainable hunting and trapping and wildlife observation and photography as desirable uses of wildlife resources.
- Assure that wildlife populations are of appropriate size to meet the demands placed on them, including consumptive and non-consumptive uses.
- Increase understanding of the occurrence, distribution, and ecology of game and nongame wildlife species and their habitats. Among nongame species, focus on

species classified as rare, threatened, endangered or special concern, and those species associated with boreal habitats.
- Minimize wildlife damage and nuisance wildlife problems.
- Meet the public's desire for information about wildlife and its conservation, use, and enjoyment.

Actions

- Manage and protect wildlife through enforcement of the Environmental Conservation Law and applicable rules and regulations.
- Post loon protection advisory signs at the Sprague Pond and Sagamore Lake. trailheads, and at trailheads leading to other waters where loons may be found to breed.
- Conduct a survey of hunters and trappers that use the unit.
- Continue hunter education efforts.
- Conduct surveys for spruce grouse and evaluate the distribution and quality of potential spruce grouse habitat. Based on results of the surveys and habitat assessment, consider reintroducing or augmenting the spruce grouse population (see below).
- Inventory boreal habitats within the unit.
- Where harvest information is lacking, conduct surveys for American marten to better understand distribution and habitat use.
- Conduct surveys for bird species, such as Bicknell's thrush, that are associated with lowland and high-elevation boreal forest.
- Monitor existing radio-collared moose and continue to collar new individuals on an opportunistic basis.
- Continue to support statewide survey efforts, such as the Breeding Bird Atlas and New York Natural Heritage Program surveys, that increase our understanding of the occurrence and distribution of flora and fauna.
- Update mapping and inventory information for deer wintering areas. Assess current deer use of historical wintering areas. Identify potential deer wintering areas using geographic information system (GIS) and modeling techniques.
- Continue active management of wildlife populations primarily through hunting and trapping regulations for individual or aggregate wildlife management units. Continue to consider input from citizen advisory committees in determining desirable levels of wildlife.
- Provide information, advice and assistance to individuals, groups, organizations and agencies interested in wildlife whose activities and actions may affect, or are affected by, wildlife resources or the users of wildlife.
- Provide information, advice and/or direct assistance to requests, both for relief from problems with nuisance wildlife and for solutions to reduce or alleviate nuisance wildlife problems.

1. Provide information to user groups on avoiding problems associated with black bears. Encourage the use of bear-resistant food canisters.

2. Work cooperatively with the Division of Lands and Forests to assess problems associated with beaver-flooded trails. Work with area trappers and encourage trapping at nuisance sites during the open beaver trapping season.

FISHERIES

Present Conditions and Assumptions

Native Adirondack fish species have suffered moderate declines within the unit, primarily due to nonnative species introductions that occurred decades ago in Sagamore Lake and Rock Pond. Only 50 percent of unit waters (11 of 22) are known to support fish communities. Seven waters are known to be fishless and it is likely that the four unknown waters are also fishless. These fishless waters are primarily small, acidic bog ponds. Although brook trout are present in nine of the 11 waters with fish communities; without annual stocking this species would disappear from all but one lake. Historically, brook trout were probably present in 10 of 11 waters and may have been present in now fishless Aluminum Pond. In recent times, the continuing spread of nonnative golden shiner has negatively impacted brook trout in at least four ponds. A self-sustaining population of lake trout has existed in Sagamore Lake for many years, but the current status of this population has not been evaluated since 1984. Brown trout have been stocked in three waters to supplement the brook trout fishery and, perhaps, reduce the abundance of golden shiner. Warmwater species are found in two unit waters, but do not provide significant fisheries. There may be as many as five indigenous species (lake chub, blacknose shiner, common shiner, redbreast sunfish, and longnose sucker) now absent from the unit, but comprehensive modern survey data is required to be sure of their status. None of these five species are listed as endangered, threatened or of special concern in New York State. Overall angling use of unit waters is light, even in comparison to other wilderness areas. There are no known waters or their approaching trails where angling overuse is causing physical damage or conflicts with other user groups.

Objectives

- Increase the number of native, self-supporting brook trout populations within the unit from one water to three.
- Monitor the status of native and invasive nonnative fishes.
- Reduce the presence of nonnative, competitive fish species within the unit.
- Preserve or enhance the lake trout and brook trout populations in Sagamore Lake.
- Do not stock waters that were historically fishless (i.e., waters believed to be fishless prior to European colonization).
- Document the status of blacknose shiner, lake chub, common shiner, longnose sucker and redbreast sunfish within the unit.

Actions

- Reclaim Slim Pond (R-P302) after building a fish barrier dam on its outlet to prevent reinvasion by other fish species. Stock with a heritage strain of brook trout after the reclamation. This reclamation is expected to result in establishment of a self-sustaining brook trout population and eliminate a population of nonnative golden shiner. When reclaimed, brown trout stocking would cease for this water unless nonnative species were to become reestablished to the detriment of the brook trout population.
- Inspect and evaluate the current Sprague Pond fish barrier dam, which suffers from chronic leaking. Repair the dam if feasible. If the dam can not be repaired, determine whether it should be relocated or removed.
- If an effective barrier dam is constructed on Sprague Pond, reclaim the pond and stock with a heritage strain of brook trout. This population would be expected to become self-sustaining. Populations of pumpkinseed and nonnative golden shiner would be eliminated. Pumpkinseed would remain in two other unit waters. Consideration should be given to reintroducing blacknose shiner, likely extirpated by golden shiner in the 1950s or 1960s.
- Continue stocking brook trout in unit waters that do not have self-sustaining populations. Maintain brook trout only in waters where they were present as of the writing of this plan. Stock brown trout in some unit waters to supplement the brook trout fishery and to help control the abundance of nonnative golden shiner.
- Conduct comprehensive surveys of Rock Pond and Sagamore Lake to evaluate the status of lake chub, redbreast sunfish, longnose sucker, common shiner, lake trout and other indigenous species.
- Periodically survey other unit waters, particularly Grassy Pond and Lower Mitchell Pond, to assess whether nonnative species introductions have negatively impacted brook trout and other native species. Such surveys are typically scheduled after angler reports of poor fishing or observations of nonnative species. If nonnative species accrue in Grassy Pond and/or Lower Mitchell Pond to the detriment of brook trout, the schedule of implementation in this UMP will be amended and a permit will be sought to reclaim those ponds. Reclamation would be followed by stocking of a heritage strain of brook trout. Blacknose shiner may also be restocked into Grassy Pond to avoid extirpating that species within the unit if it is determined that the species is truly native to the Adirondacks and a suitable regional source for the species can be found.
- Avoid stocking of any fish species in the unit waters identified as historically fishless.
- Continue the unit-wide prohibition of the use of fish as bait. Post signs at all trailheads to BRW ponds and Sagamore Lake.

Land Protection

PRESENT CONDITIONS AND ASSUMPTIONS

The overall framework for land protection in New York State is identified in the *New York State Open Space Conservation Plan*. The plan is built from the bottom up from the work of nine regional committees, representing the spectrum of open space advocates, natural resource and recreation professionals, local government and concerned citizens. The plan ensures that the State of New York conserves its cherished open space resources as a critical part of efforts to improve the economy and the quality of life in New York communities.

A major responsibility of the Department is to exercise care, custody and control of State-owned lands. Law enforcement staff work to protect State lands from improper activities such as timber theft, private uses such as the storage of personal property, and occupancies that occur when structures and other improvements of a permanent nature, such as roads, driveways or parking areas, are constructed on State lands. Though existing laws and regulations address some issues, they are not adequate to serve as a basis for effective enforcement against some actions that clearly violate the intent of Article XIV of the New York State Constitution or the APSLMP. For example, penalties are not sufficient for illegal motor vehicle use, and existing regulations do not prohibit the use of motorized equipment in wilderness. An existing regulation generally prohibiting the storage of personal property on State lands should be supplemented by regulations that apply more directly to specific issues such as the storage of boats or the installation of permanent tree stands.

A road at the south end of the cemetery on Durant Road on the west side of the access road to the Cascade Pond trailhead is thought to have been constructed in the recent past and may not be a legal right-of-way.

The boundaries of the BRW and WMPA were established when the APSLMP was adopted in 1972. Since then, additional lands have bee acquired and added to the unit. A review of unit boundaries during the UMP process revealed locations where minor classification and reclassification proposals could be made to improve the administration of this and adjacent units. The Golden Beach Campground septic system, which is within the borders of the BRW, was constructed in 1966 and should have been included within the campground intensive use area. The septic system is in need of rehabilitation. Depending upon the results of an engineering analysis and the availability of funding, either the existing system will be upgraded or a new system constructed in a new location. A reclassification to intensive use will be required to permit the existing system to be rehabilitated.

OBJECTIVES

- Take appropriate measures to provide public access where needed and protect important natural resources adjacent to the BRW in accordance with the *New York State Open Space Conservation Plan.*
- Protect the lands of the BRW and WMPA against timber theft, the storage of personal property, occupancies and other illegal activities.
- Recommend classification and reclassification of Forest Preserve parcels where appropriate to better define the BRW, WMPA and adjacent units.

ACTIONS

- Strengthen and supplement existing laws and regulations to permit effective enforcement against occupancy, storage of personal property, and motor vehicle and motorized equipment use.
- Regularly patrol boundaries for unauthorized activities, such as timber theft, illegal occupancy and illegal motor vehicle and mountain bike entry. Aggressively pursue enforcement against illegal activities.
- Pursue resolution of legal issues regarding the access road on the south end of the cemetery located on the west side of the access road to the Cascade Pond trailhead.
- Investigate the desirability of reclassifying the wild forest parcel east of the road between Sagamore Lake and Lake Kora to wilderness.
- Propose classification of the unclassified parcel surrounding the Cascade Pond trailhead. Include the road from Durant Road (C.R. 19) to Lake Durant, along with the part of the unclassified parcel east of the road, in the Blue Mountain Wild Forest. Include the part of the parcel west of the road in the BRW.
- After an engineering analysis is conducted and a decision is made regarding the design and location of the Golden Beach Campground septic system, take appropriate action to assure that the septic system is situated within lands classified intensive use.

Administration

PRESENT CONDITIONS AND ASSUMPTIONS

Historically, the management of Forest Preserve lands by the Department has been divided along the lines separating program divisions. The individual responsibilities of the Divisions of Lands and Forests; Operations; Fish, Wildlife and Marine Resources; and Forest Rangers have been only loosely coordinated. In addition, the jurisdiction of the staff within each division has been delineated generally by county lines rather than the boundaries of Forest Preserve management units. Making the Forest Preserve unit the focus of management and improving coordination among program divisions would benefit the public by giving them a single contact for information about the unit and

making the unit more identifiable as an entity with a consistent recreational atmosphere. The changes would benefit the Department by allowing staff to work more cooperatively and consistently in meeting Forest Preserve management goals.

The interaction between the Department and APA is governed by a memorandum of understanding. The various divisions of the Department have attended to the procedures laid out in the MOU in an uncoordinated manner. Better coordination could improve efficiency in meeting management goals within and between the two agencies.

OBJECTIVES

- Make the BRW and WMPA a focus of Department management.
- Improve the management of the BRW and WMPA through better coordination among Department program divisions and between the Department and APA.

ACTIONS

- Designate a unit manager for the BRW and WMPA who would coordinate all management activities to make the management of the unit as efficient and consistent as possible, and to facilitate communication with the public about the management of the unit. The unit manager would be appointed by the appropriate regional director and typically would be the appropriate supervising forester or a designee within the Division of Lands and Forests. Staff from all Department program divisions with Forest Preserve management responsibilities would keep the unit manager informed about planned activities, natural resource conditions, and anything else that would have a bearing on Forest Preserve management or public communication. For each unit under his or her jurisdiction, the unit manager would be responsible for:

    - Overseeing the preparation, periodic update and revision, amendment, and implementation of unit management plans;
    - Coordinating the preparation of budget requests;
    - Assuring that the management activities of all Department divisions comply with applicable laws, regulations, policies, the APSLMP and unit management plans;
    - Coordinating trailhead management and all department signage within the unit; and
    - Fostering communication about management activities within the Department, between the Department and APA, and between the Department and the public.

- Appoint a management team as another measure to advance the cause of coordinating the management of the BRW and WMPA. The management team would be appointed by the regional director. The activities of the team would be

overseen by the unit manager. For each unit, the unit management team typically would be composed of:

- The unit manager;
- One forester;
- Staff from the Office of Public Protection to include at least one forest ranger, and if appropriate, an environmental conservation officer;
- One fisheries biologist;
- One wildlife biologist;
- One operations supervisor; and
- One representative of the Bureau of Real Property.

The unit management team roster might vary, depending on the character or management history of the unit. The unit management team will be responsible for:

- Preparing, periodically updating and revising, amending, and implementing the unit management plan;
- Monitoring resource conditions and public use and assessing the effectiveness of the unit management plan in addressing resource and public use needs;
- Preparing budget requests for the unit; and
- Communicating regularly with each other, their program divisions, the unit manager, and the public.

Facilities

PRESENT CONDITIONS AND ASSUMPTIONS

According to the APSLMP, a wilderness area is a place "where the earth and its community of life are untrammeled by man. . ." It is an area having "a primeval character, without significant improvement or permanent human habitation . . ." In wilderness, the construction of conforming structures and improvements "will be restrained to comply with wilderness standards for primitive and unconfined types of recreation and to permit better maintenance and rehabilitation of existing structures and improvements." These and the other guidelines of the APSLMP, as well as the general goals developed for the unit, govern the Department's construction and maintenance of the parking areas, trails, lean-tos and other facilities that accommodate public recreational access and use of the BRW and WMPA. The objectives and general actions listed below apply to all structures and improvements in the unit.

GENERAL OBJECTIVES

- Construct, maintain and manage all structures and improvements in conformance with the APSLMP, the goals for the unit, and the desired conditions established for zones 1 and 2.
- Remove all nonconforming uses, subject to applicable laws and APSLMP guidelines, as soon as possible.
- Develop a complete inventory of all structures and improvements and identify maintenance needs in accordance with the Department's maintenance management system (MMS).
- Establish a program of continual monitoring of the unit's conforming structures and improvements through the implementation of the MMS.
- Aggressively maintain conforming structures and improvements to appropriate wilderness standards.
- Design all structures and improvements in accordance with a unified system developed for all Forest Preserve lands.
- Comply with the requirements of ADA and use existing and proposed ADAAG in the construction and reconstruction of structures and improvements.
- Support the retention and long-term development of facility construction and maintenance expertise among Department staff.
- Supplement Department staff resources by encouraging volunteer assistance in the construction and maintenance of facilities. Enter into long-term volunteer maintenance agreements under the terms of the Adopt-A-Natural Resource Policy.

GENERAL ACTIONS

- Prepare a project work plan for each construction or maintenance project. As part of the preparation of a project work plan:

  1. Consult the Adirondack Park Agency in accordance with the current DEC-APA memorandum of understanding.
  2. Comply with the requirements of all applicable laws, regulations and policies.
  3. Secure all necessary permits.

- Use the Limits of Acceptable Change (LAC) system to monitor and address environmental impacts related to the existence and use of structures and improvements in the unit where use impacts are significant, or have the potential to become significant.
- Assess the accessibility of the BRW and WMPA and determine actions necessary to comply with ADA.

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BOUNDARY LINES

Present Conditions and Assumptions

The establishment and maintenance of boundary lines, both between Forest Preserve management units and between State and private lands, is an essential foundation of management. The proper maintenance and identification of boundary lines assures that Forest Preserve timber and other natural resource values may be protected, encroachments from adjacent lands may be prevented, laws and regulations may be enforced, and the public may clearly perceive the location and classification of Forest Preserve lands.

The unit has an approximate total of 58 miles of boundary (not including the boundary between the BRW and the WMPA). Of that, there are 26 miles of boundary between State and private lands needing regular maintenance, 10 miles of boundary between the BRW and other management units, 14 miles of frontage on public roads (not including the Gould road), four miles that coincide with trails and private roads, and four miles along the edges of lakes and rivers. The boundary lines between the lands of the BRW and adjacent private lands generally are visible on the ground and have been maintained. In recent years significant resources have been devoted to a region-wide program of annual boundary line maintenance. The boundaries between the BRW and adjacent Forest Preserve lands of other classifications are not visible on the ground, except where they coincide with physical features such as roads and streams. The boundary between the BRW and Lake Durant Campground should be marked and signed because it is important that the public be made aware of the separation between lands where fee and free camping is permitted. Where the boundary coincides with roads and trails, signs bearing the land classification should be regularly posted.

Objectives

- Locate all boundary lines and identify them clearly to adjacent landowners and the public.
- Physically identify boundaries on the ground between units having different APSLMP classifications where necessary for public information and proper administration.

Actions

- Physically inspect unit boundaries to determine survey and maintenance needs; assign survey and maintenance priorities.
- Ensure that all boundaries between Forest Preserve and private lands are identified and marked within five years.
- Identify and mark the boundary between the Lake Durant Campground and the BRW.

- Post standard Forest Preserve boundary signs indicating the classification of the land being identified every one-tenth mile along all public roads that pass through or adjacent to Forest Preserve lands and at other strategic locations, such as: (1) points on trails where they cross boundaries between private and State lands or between Forest Preserve lands of different classifications; and (2) along boundary segments that coincide with roads and trails.
- Brush, paint, and sign all boundary lines at least once every seven years.
- Identify the unit and its wilderness designation on signs at trailheads and other entrances to the BRW.

TRAILS

Present Conditions and Assumptions

There are approximately 11.5 miles of marked foot trails in the BRW. About a half-mile of the foot trail up Wakely Mountain is within the WMPA. In addition, several miles of former roads are or have been followed by hunters and anglers, and unmarked foot paths follow streams and lead to interior ponds. Nevertheless, much of the heart of the BRW remains inaccessible by trail and is seldom visited by people. With extensive areas of old growth forest, the large trailless interior of the BRW comprises a system of natural plant and animal communities that affords visitors outstanding opportunities for experiences of solitude in a true wilderness environment.

Perhaps the best-known trails within the unit are the trail to the Wakely Mountain fire tower (most of the trail is within the Moose River Plains Wild Forest) and the segment of the Northville-Lake Placid trail extending from private land on Cedar River Road past Stephens Pond to the Lake Durant Campground. The other marked trails in the unit are those to Sawyer Mountain, Cascade Pond and Wilson Pond. Unmarked trails that sustain noticeable use are those to Sprague Pond, Slim Pond and former carriage roads in the vicinity of Sagamore Lake.

An inventory of BRW and WMPA trails was completed in 2002 and has been incorporated into a trails classification system, patterned after the U.S. Forest Service's Nationwide Trails Program as endorsed by the U.S. General Accounting Offices, 1989. The Department has incorporated this system into its BRW and WMPA trails program and each trail has been assigned a classification based on its present condition and level of use. Five trail classifications are used ranging from unmarked footpaths (Class I) to intensively maintained trunk trails (Class V). The classification system acknowledges the fact that all trails do not require the same degree nor frequency of maintenance. Trail standards and maintenance prescriptions reflecting different types and levels of use are defined for each class in Appendix 13.

Several sections of the BRW and WMPA trail network cross wetlands and streams. Though excessive slope is not a problem for most trails, the trail ascending the steep flank of Wakely Mountain to the summit follows the fall line and is subject to soil erosion. In general, few trail-hardening or drainage improvements have been installed on

the trails in the unit. Maintenance has consisted mostly of blowdown removal, brushing and trail marking. Detailed trail logs documenting trail maintenance needs have yet to be conducted.

Though bridging or trail-hardening structures should not be provided at every wet spot, permitting a trail to pass unimproved through extensive wetlands or across streams with unstable banks can lead to unacceptable impacts to vegetation, soils, aquatic habitats and natural visual character. On existing trails, significant wet areas should be avoided through trail relocation, where feasible. Where terrain restrictions prevent relocation, appropriate types of bridging or trail hardening should be installed where necessary to protect natural resources. When determining the location of a new trail, a route should be chosen that will minimize long-term environmental impacts and maintenance needs. To get to interior destinations, anglers and hunters are inclined to establish foot paths that follow old roads. However, old roads often follow streams or run along the toes of slopes where the water table is high and numerous springs flow across the road surface, especially in spring and fall. The amount of bridging or drainage work necessary to convert such roads to official trails can be excessive.

Trail management involves not just the trail itself, but also the corridor it occupies. Trails are not self-sustaining. Once developed, all trails must receive a degree of maintenance; otherwise non-maintained trails will deteriorate and cause resource problems. The Department faces a backlog of water management needs on the unit's trails. The installation and maintenance of ditching, waterbars, stone staircases and other drainage or trail-hardening structures is labor intensive. To supplement the efforts of its trail crews, The Department relies on volunteers and trail contractors. User groups, clubs, and other organizations raise resources, financial and otherwise, for trail work. Contributions come in terms of labor, materials, and planning assistance. The Department has received significant trail maintenance assistance from the Adirondack Mountain Club and the Student Conservation Association (SCA). The use of volunteers and contractors, though effective, has associated costs and other limitations. Department personnel must devote time to planning and coordination, training, supervision, and logistical support.

As in most areas of the Forest Preserve, few people travel off marked trails in the BRW and WMPA. However, hunters and anglers have developed visible pathways through repeated trips to favorite destinations. Though use levels on most unmarked trails are not expected to grow to levels that would cause significant impacts to natural resources or the recreational environment, it is possible for unmarked trails to be illegally marked and maintained to the extent that management action is required. Unmarked trails should be inventoried and monitored, and appropriate action should be taken when necessary to prevent unacceptable impacts.

General Objectives

- Preserve the largely trailless character of the interior of the BRW west of the Northville-Lake Placid Trail and Wilson Pond.

- Provide visitors with a trail system that offers a range of wilderness recreational opportunities in a manner that keeps natural resource impacts and maintenance needs to a minimum.
- Aggressively maintain marked trails to appropriate wilderness standards. Emphasize resource protection and visitor safety rather than user convenience or comfort.
- On existing marked trails or existing unmarked trails to be marked, address major wetland, spring or stream crossings, beaver flooding or soil erosion on slopes through trail relocation where feasible. Address major wet areas and erosion problems that cannot be avoided through trail relocation, as well as minor wet areas and erosion problems, through the installation of bridges or appropriate water management structures, but only where necessary to protect natural resources.
- In the construction of new trails, seek routes that would minimize environmental impacts and ongoing maintenance costs by avoiding wetlands, stream crossings, significant habitats, unstable soils and steep slopes, while taking advantage of natural features that would contribute to the enjoyment of the trail by visitors.
- Identify important existing vistas and maintain them by the cutting of brush and tree limbs and by minor tree cutting, but only to the extent that vista maintenance will not significantly reduce the wild character of the area.
- Design and locate trail markers and trail signs in accordance with a unified system developed for all Forest Preserve lands.
- Relocate the Northville-Lake Placid Trail off public highways.

General Actions

- Formally adopt, as a matter of Department policy, the trails classification and standards system proposed in Appendix 13 for all trail management activities, and assign appropriate classifications to all trails in the unit.
- Construct and maintain all trails in the unit in accordance with their classifications under the official trails classification and standards system. Trail maintenance will include removal of down trees, tree pruning, clearing of brush, ditching, water bar construction and cleaning, the construction of bridges where needed, bridge repairs and reconstruction. All construction and maintenance work will conform with best management practices and will be conducted in accordance with project work plans and APA wetlands permits if required, subject to the availability of funds and volunteer labor.
- Identify trail sections that are vulnerable to excessive damage because of steep slopes, erodible soil types or high water tables and close them during wet seasons. Announce trail closures through the posting of signs at trail heads and through the media. Seek voluntary compliance first, regulation and enforcement only when and where lack of voluntary compliance poses a serious threat to natural resources.
- Prohibit by regulation the marking or maintenance of trails, including trails that serve as exclusive access from adjacent private lands, without Department approval.

- Develop LAC indicators and standards for marked and unmarked trails in the BRW and WMPA.
- Conduct a detailed inventory of chosen LAC indicators for all marked trails in the BRW and WMPA. Begin an inventory of major unmarked trails after the inventory of marked trails has been completed.
- Analyze inventory information in relation to LAC standards.
- Take appropriate actions when and where necessary to keep LAC standards from being exceeded.
- Reinventory trails every five years.

EXISTING MARKED TRAILS

In this section, trails that are considered part of the official Department-marked trail network are described, management issues are discussed, and proposed management actions are presented. Marked trails are those that are delineated with Department trail markers and maintained for public use, either by Department trail crews, private companies or organizations under contract, or volunteers with Department oversight.

Wilson Pond Trail

The Wilson Pond trail is the 2.9-mile trail that leads southward from an unpaved parking area on the south side of Route 28 near Eagle Lake, across private lands by deeded easement, to Wilson Pond. There is a lean-to on the pond, and members of its brook trout population are sought by anglers. Groups larger than nine people seldom have sought camping permits for the Wilson Pond lean-to. There is no trail register at the trailhead, but the trail does not appear to be heavily used. The use of the trail may remain steady or increase slightly over the next five years in proportion with general Forest Preserve use trends. It is likely that anticipated use levels will not preclude significant opportunities for solitude on the trail throughout the year. A trail register would provide valuable information about trail use.

A little more than a half-mile in from Route 28, the Wilson Pond trail crosses an extensive wet meadow flanking the stream that flows from Wilson and Slim Ponds to Rock Pond. Proceeding southward, the trail crosses approximately 150 feet of wetland, then crosses the stream on a top-log bridge 12 feet long, then crosses another 50 feet of wetland before reaching higher ground. Because there is no bridging in the wetland, foot travel has disturbed soils and vegetation. Soils are fairly firm, and public use levels have been low, so impacts have not been significant. However, measures to protect the wetland from increasing impacts over time should be taken.

A map review indicated that it might be feasible to reroute a part of the trail to a point on the Slim Pond outlet upstream of the present crossing point, where a wetland crossing might be shorter. Upstream reconnaissance revealed that broad riparian wetlands flanked the stream for a significant distance. Approximately one-half mile upstream, near the confluence of Loon Brook, a trail would still have to cross approximately 50 feet of wetlands. Connecting the crossing to the existing trail on both sides of the stream would

require at least a mile of new trail construction, mostly over difficult terrain involving sections with steep slopes, rocky or hummocky surfaces, stands of dense spruce-fir saplings, and additional stream and wetland crossings. It was deemed likely that the potential benefits of a reroute would be outweighed by the impacts of the construction and ongoing use of a new route.

ACTIONS

- Maintain the Wilson Pond trail as a class III foot trail.
- Protect wetland soils and vegetation by constructing approximately 200 feet of bog bridging where the trail crosses wetlands flanking the Slim Pond outlet. Obtain a wetlands permit from APA before construction.

Cascade Pond Trail

The Cascade Pond trail is the 3.5-mile trail that leads southwestward, then southeastward from the trailhead on Durant Road 2.8 miles to Cascade Pond, and on to the intersection of the Northville-Lake Placid trail. It is an attractive day hike readily accessible from the hamlet of Blue Mountain Lake. Because the Cascade Pond trail connects with the Northville-Lake Placid trail, the pond also has been a destination for hikers and skiers from the private trailhead on Cedar River Road and from Lake Durant Campground. There is a lean-to on the pond, so some trail use is associated with camping. Occasional groups of up to 12 people camp at the lean-to site. The pond's brook trout population makes it a popular fishing destination. It is assumed that most use occurs from fishing season in spring through big game hunting season, with occasional winter use. The lean-to is known to be a camping destination for big game hunters. Though there is no trail register at the trailhead, it is thought that the use of the trail is light to moderate. The use of the trail may remain steady or increase slightly over the next five years in proportion with general Forest Preserve use trends. It is expected that projected use levels will not preclude significant opportunities for solitude on the trail throughout the year. A trail register would provide valuable information about the use of the trail.

ACTION

- Maintain the Cascade Pond trail as a class III foot trail.

Sawyer Mountain Trail

The Sawyer Mountain trail is a 1.1-mile trail that leads southwestward from the paved parking area on the southwest side of Route 28 to an overlook near the summit of Sawyer Mountain, elevation 2,610 feet. The trail is well located and climbs at a steady, moderate grade. It generally crosses stable, well-drained soils and has few erosion or drainage problems. It is capable of withstanding significant foot traffic. With its trailhead on a designated scenic byway, its relatively gentle grade and short length to mountain views, this trail affords an opportunity for families and those not inclined to engage in more rigorous backcountry travel to enjoy a primitive recreational experience.

The view at the top is limited to a narrow slot in the forest where the ground drops away. This vista consists of an opening from the end of the trail having a horizontal angular dimension of approximately 30 degrees. It has been maintained for many years through the limited periodic cutting of small trees and brush over a distance of approximately 50 feet downslope from the end of the trail. Without maintenance, it is likely that the vista would become obstructed within 10 years. Without a vista at the summit, it is unlikely that there would be sufficient use of the trail to justify its continued maintenance.

An opinion of Attorney-General John J. Bennett, Jr. issued on January 17, 1935 provided that, "Article VII, section 7 (now Article XIV) of the New York State Constitution does not prevent the removal of an immaterial amount of tree growth for the purpose of opening vistas or views in connection with the building of pedestrian trails in the Forest Preserve. Care should be taken that such removal does not pass the point of immateriality as defined by the courts." The written opinion includes the advice that tree removal be done "where as little cutting as possible is required."

The 1986 Forest Preserve Policy Manual provides that in wilderness areas, "existing scenic vistas may be maintained by the cutting of brush and tree limbs and by minor tree cutting if the continuance of the scenic vista is specified in the unit management plan for the State land area involved." Vista maintenance provisions were included in the trails section, because a vista is considered an integral feature of a trail, not a distinct improvement as that term is defined in the APSLMP. No formal determination has been made by the Adirondack Park Agency, however, regarding the APSLMP compliance of the this portion of the Department's trail maintenance policy.

It would be expected that the visibility of the trail from a major highway in proximity to major tourist destinations could lead to high use levels. However, even with roadside signs pointing to the trailhead and ample parking, use levels have been lower than other mountain trails. It is possible that the relatively low use levels correspond with the limited views at the summit. Since a trail register was installed in 2000, between 1,600 and 2,500 people per year have signed in. However, because it is likely that many trail users do not sign the register, use numbers probably are higher. Significant numbers of people climb to the summit from May through October. Highest use levels occur in July and August, with from five to 10 and up to 20 parties per day signing in. All those who have signed in have indicated that their goal has been to climb to the summit. Though there are few indications on the register sheets that the trail is used for hunting access, the parking area occasionally is used by hunters. During the months of December through April, from five to 10 parties per month sign in, with occasionally higher numbers in months with lighter snow cover.

Because visitors are not likely to have high expectations for solitude on this roadside trail, and the trail surface is generally stable, higher levels of use could be accommodated without exceeding the capacity of the trail to withstand use. With the continuation of limited vista maintenance to preserve the view from the summit, it is likely that use levels would increase moderately over the next five years.

The Sawyer Mountain trail affords an attractive family-oriented recreational opportunity that is easily accessible from a State highway. However, the view from the vista location is limited and requires ongoing maintenance. After reviewing the draft UMP, members of the public, along with Department and APA staff, suggested that opportunities for new trails to more open views that would not require maintenance existed in the vicinity of the Sawyer Mountain trail. It is possible that a relatively short, easy trail could be constructed to the open summit of Ledge Mountain in the adjacent Blue Mountain Wild Forest. The trail could originate at the existing parking area for the Rock River trail on the north side of Route 28. There also are vantage points from the southern ledges of Stark Hills. The creation of a new trail to Ledge Mountain or Stark Hills, if conditions were suitable, would allow the trail to Sawyer Mountain, a trail to a narrow view requiring regular maintenance, to be replaced in the same general area by a trail to a summit having a natural, more attractive and open view.

ACTIONS

- Maintain the Sawyer Mountain trail as a class IV foot trail.
- Maintain the existing vista at the end of the trail near the summit of Sawyer Mountain mainly through brushing and the pruning of tree branches whose removal will not significantly reduce the wild character of the area. Remove trees larger than three inches rarely, and only when necessary to maintain the dimensions of the existing vista. During annual maintenance, stagger the cutting of brush and, if necessary, the limited cutting of trees within the area immediately below the end of the trail, so that trees and shrubs in the area will exhibit a natural variation of sizes.
- Investigate the potential for creating a new trail to Ledge Mountain or another suitable destination in the Blue Mountain Wild Forest. If a suitable opportunity is found, amend the Blue Mountain Wild Forest UMP and construct the new trail. If the new trail is constructed, discontinue the maintenance of the Sawyer Mountain trail and vista. Remove trail markers, the trailhead signs and the trail register. Maintain the existing parking area for general access to BRW lands.

Wakely Mountain Trail

The trail to the summit of Wakely Mountain begins at a large parking area off Cedar River Road in the Moose River Plains Wild Forest (MRPWF). The trail follows old roads for the first two miles, then climbs steeply up the mountain`s southeast flank for another mile to the summit. The first mile of the trail is within the MRPWF. Along most of the trail's remaining length it forms the boundary between the BRW and the MRPWF (where it is within the MRPWF). The final half-mile to the summit is within the WMPA.

Registration numbers, which have remained fairly steady over the past several years, indicate that public use of the trail to Wakely Mountain has been significantly lower than the use of other fire tower trails. The cause of the difference is unknown, but contributing factors may include the distance of the trailhead from the State highway, the relative difficulty of the climb and the lack of summit views from anywhere but the tower. Should

the fire tower be retained and rehabilitated for public access, recent books popularizing fire towers could cause public use to increase substantially. On the other hand, use levels would decrease substantially should the fire tower be removed, since there would be no views from the summit. It is likely that most people climbing this fire tower trail would not have high expectations of solitude. But relatively low use levels would afford opportunities for solitude throughout the year.

Because there is no barrier at the far end of the parking area, the public may drive over a mile to the point where the trail crosses a small stream on a narrow foot bridge. The MRPWF UMP will propose that a boulder barrier be installed to prevent public motor vehicle access beyond the parking area.

Long stretches of the former road that constitutes the first two miles of the trail have sustained significant erosion. Water flowing down the middle of the road has created channels that continue to expand. In most places, erosion could be arrested through the maintenance of existing ditching and the installation of water bars. The steep final section also shows evidence of ongoing erosion. The prevalence of roots and large rocks helps slow the flow of water, and the degree of erosion is less than on trails having similar soil and slope characteristics in more heavily used areas. However, without action to control water flow, soil erosion will continue. Soil and terrain characteristics would permit the construction of effective waterbars at a number of locations through this section.

Another strategy to alleviate the difficulties in managing the steep final ascent of the existing trail would be to investigate the availability of a more gentle approach to the summit. A review of topographic maps indicated that a gentler ascent might be found along the ridgeline approaching the summit from the southwest. A new trail route has been proposed (see the proposal under "New Trails to be Constructed," below). With the retention of the fire tower and the construction of a new trail as proposed, it is expected that the numbers of people using the existing trail would decline. Therefore, the indication of the trail on a sign posted on Route 28 likely would not cause use levels to increase beyond the capacity of the trail to withstand use. Should the proposed new trail be constructed, the desirability of retaining the existing trail should be periodically assessed.

ACTIONS

The actions proposed for the Wakely Mountain trail also involve the Moose River Plains Wild Forest.

- Maintain the Wakely Mountain trail as a class IV foot trail.
- Maintain existing ditching, install new ditching and waterbars where necessary to effectively manage water runoff to minimize soil erosion.
- Add a sign directing highway travelers to the Wakely Mountain trailhead to the existing signpost at the intersection of Route 28 and Cedar River Road.

- After the Cellar Pond route to the summit is constructed, monitor public use patterns and periodically review the desirability of retaining or closing the existing trail.

UNMARKED TRAILS TO BE MARKED

There are a number of trails in the BRW that are used by the public and are discernible on the ground but are not marked or maintained by the Department. In this section, unmarked trails proposed for addition to the list of marked and maintained trails are described, management issues are discussed, and proposed management actions are presented.

Sagamore Trails

All the former carriage roads of the original Sagamore estate have been used as hiking and cross-country ski trails. They are known as the Cascades, Powerhouse, Big Slope, Blue Ridge (Farm Meadow), and Sagamore Lake trails (Figure 13). A short path breaks off the Sagamore Lake trail near its northern end and leads about 50 feet to a waterway access site. The site is used for the hand-launching of nonmotorized boats. In consultation with the local forest ranger, Sagamore's staff occasionally have removed brush and blowdown from the trails using hand tools. Sagamore considers all except the Blue Ridge trail essential to their interpretive programs and would be willing to maintain them under a stewardship agreement with the Department. All the trails are within the BRW. An additional trail, the Beaverflow trail, is in the MRPWF. Use of most of the trails has been

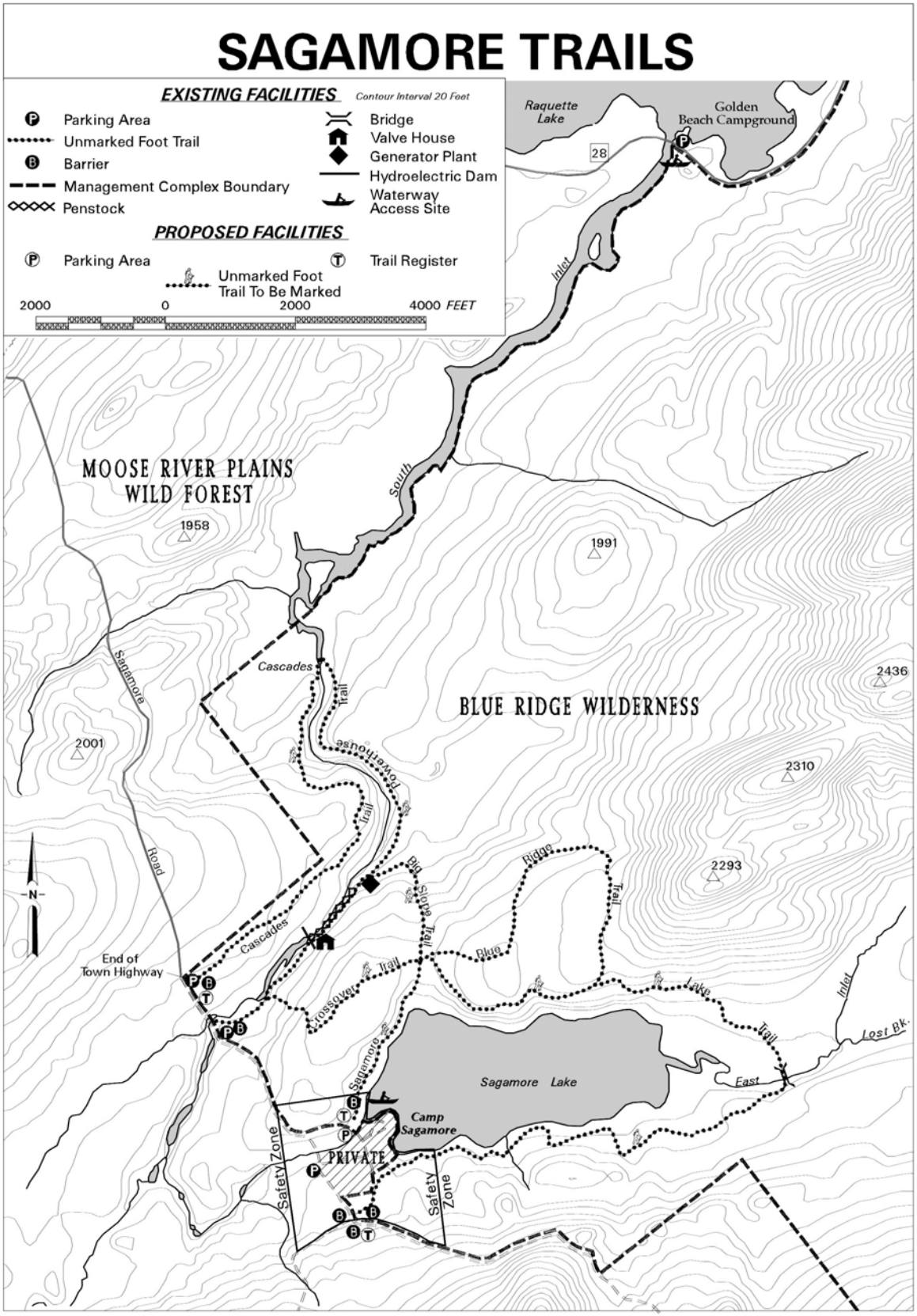

Figure 13. Sagamore Trails

light, largely limited to Sagamore guests, especially groups led on educational excursions by Sagamore staff. The trail around Sagamore Lake is the one most regularly used by the general public, who hike it during the summer and fall and ski it in winter. It is used by hunters for access to the interior during big game season. In addition to the former carriage roads, Sagamore is interested in having a former skid trail designated as a foot trail to permit a trail connection between the Farm Meadow and the upper end of the Powerhouse trail. The designation would provide visitors an alternative to walking and skiing on Sagamore Road. It also would allow less confident skiers to avoid the relatively steep Big Slope trail. The adoption of the Sagamore trails would provide a network of hiking and cross-country ski trails for public use throughout the year. The installation of Department signs and trail markers and the availability of public parking would clearly indicate that the trails are open to the public as parts of the BRW trail system. In addition, the trails would serve the educational mission of the Sagamore Institute. As former carriage roads of the original Sagamore estate, the trails connect a number of sites and ruins that are included in Sagamore's National Historic Landmark designation.

Because the Sagamore trails already exist, new trail construction would not be required. Significant wet areas on some trails would be addressed over time through appropriate measures such as the installation of waterbars, ditching or bridging. A substantial bridge over East Inlet on the Sagamore Lake trail was constructed with steel I-beams, and therefore does not conform with APSLMP guidelines requiring the use of natural materials. It would be replaced with a conforming bridge when reconstruction was required. All work would be done according to detailed work plans based on field assessments conducted in consultation with APA. A short segment of the Sagamore Lake trail near the south entrance would be relocated farther from the boundary with the Sagamore property to reduce the likelihood of trespass.

The trail around Sagamore Lake has the potential for use by people with disabilities. Bridges could be modified to make them accessible. However, many parts of the trail along the south shore present major obstacles for people with disabilities, including significant drainage problems and uneven surfaces with thick vegetation. A pathway from the trail to a waterway access site on the lake near the trail's north end provides relatively easy access for nonmotorized boats. The boulder barriers at both ends of the trail need to be modified to permit wheelchair passage. The barrier at the north end should be moved closer to the beginning of the trail to prevent cars from parking along the beginning of the trail and blocking access.

The Cascades trail is an excellent trail for people with mobility impairments. It has a generally firm and stable surface with no steep pitches, very few surface obstacles, no bridges and no drainage problems. The turf of grasses that has grown over much of the surface of the former road outside the course of the narrow footpath would impede the passage of wheelchairs.

Once designated, use of the Sagamore trails would be expected to be light to moderate and generally somewhat higher than current use levels. Historic levels of educational and recreational use by guests of Sagamore would be supplemented by occasional public use.

The lake trail probably would be more heavily used than the other trails during the summer and fall, though in winter the opportunity for skiing an extensive trail network could result in a more even distribution of use throughout the trail system. Most use would be day use.

The Sagamore trails are associated with Camp Sagamore, a major tourist destination. They are accessible from a number of parking areas on Sagamore Road. The trails form a system of relatively short, interconnecting loops that are available to people with a variety of physical abilities. Therefore, it is likely that trail users generally would expect and tolerate a higher number of interpersonal encounters than visitors to more isolated trails with more remote destinations. While affording opportunities for solitude is an objective of management throughout a wilderness area, the objective is relatively more important in the interior than near the periphery or along major trail corridors. Because the Sagamore trails are nearly all within a mile of the boundary of the BRW, managers would consider higher numbers of trail encounters among visitors to be acceptable than at more remote locations. Nevertheless, it is likely that use levels on the Sagamore trails, once designated, would not preclude opportunities for solitude throughout the year. The scenic character of the trails is typical of trails throughout the Adirondacks, and no sign advertising the trail system would be installed on Route 28. Even the relatively popular lake trail, though affording a pleasant forest walk, affords few views of Sagamore Lake. Therefore, most public use other than guests of Camp Sagamore likely would be limited to residents or visitors to the local area. The designation of these largely peripheral trails would not significantly alter the large trailless area in the interior of the BRW. Trail registers would provide valuable information about use patterns and trends.

An extensive historical deer wintering area bordering the west shore of Sagamore Lake encompasses the Cascades, Powerhouse, Big Slope and Crossover trails. Parts of the Sagamore Lake trail along the lake's east and west shores pass through areas of historical and potential wintering habitat. The degree to which the areas are used by deer at present is not known. Winter use of the Sagamore trails by people has become established in recent years. The designation of the trails may result in a general increase in use. However, use levels are expected to remain relatively low. Little research on the effects of the presence and use of ski trails on wintering deer has been conducted. Biologists have observed that the presence of people on foot near wintering areas may disturb deer under certain circumstances. They also have observed that, because people on skis and snowshoes seldom travel off marked trails, deer may become accustomed to the presence of people to some extent. People on trails usually keep moving, pausing only occasionally and for brief periods, so generally the duration of the impact of a passing party on deer at a particular location along the trail is short. Deer may be protected from disturbance through the visual screening afforded by the coniferous tree species present in preferred wintering habitat. The historical wintering area west of Sagamore Lake is relatively large, and there are a number of places within it where conifer growth in the vicinity of the Sagamore trails provides good visual screening. Therefore, it is likely that the deer that use the area in winter would be able to find locations within it where they would be relatively free from disturbance by the relatively low levels of public use anticipated.

The potential for impacts on wintering deer resulting from use of the Sagamore trails by people is likely to be reduced by the prevalence of potential deer wintering habitat adjacent to historical wintering areas (Figure 10). The historical area west of Sagamore Lake is connected with a large continuous patch of potential wintering habitat extending from Raquette Lake southwestward along South Inlet, then along the Red River in the MRPWF. The area of potential habitat, which includes the historical area, extends for more than five miles and contains approximately 2,000 acres. The historical wintering area east of Sagamore Lake is connected to a large area of continuous potential wintering habitat extending from the east shore of the lake northeastward along East Inlet. This patch is connected with a much larger system of nearly continuous potential and historical wintering habitat along streams whose valleys meet in a broad arch along the northern border of the BRW. It is not known under what conditions wintering deer may move from one area of potential habitat to another. Biologists have observed that, though deer exhibit a strong affinity for traditional wintering areas, they will move to new areas when their traditional wintering grounds are no longer suitable. It is considered likely, therefore, that the availability of an abundance of historical and potential wintering habitat around Sagamore Lake will afford adequate protection for deer both from winter snow and human disturbance. Research and monitoring would provide needed information about the use of deer yards, the locations of core areas, deer behavior and the impacts of public use in the area.

No occurrences of rare species or their habitats in the vicinity of the trail are on record with the Natural Heritage Program. Because use levels are expected to be low and few visitors would travel far from trails, public use is not expected to infringe significantly on the operation of natural processes in this area. Research is needed to more accurately characterize use impacts.

ACTIONS

- Mark and maintain the Sagamore trails as class VIII cross-country ski trails. Install “foot trail” markers as follows:

  Cascades trail - blue
  Powerhouse trail - blue
  Sagamore Lake trail - red
  Big Slope trail - yellow
  Crossover trail - yellow

- Develop a sign plan for trailhead and interior signs and install signs. Clearly identify the path to the waterway access site on Sagamore Lake. Do not advertise trails with a sign on Route 28.
- On the Sagamore Lake trail, move the boulder barrier on the north entrance out to the road, and modify boulder barriers and bridges to allow the passage of wheelchairs. Starting approximately 600 feet in on the south end of the Sagamore Lake trail, relocate 0.1 to 0.2 miles of the trail southward to increase the distance

of the trail from the Sagamore property line. Add deck boards to fill gaps on the bridge over East Inlet, and replace a small bridge on the trail off the lake's southeast shore to make them accessible. When it needs reconstruction, replace the bridge over East Inlet with a new bridge constructed of natural materials.

- Pursue a stewardship agreement with Sagamore Institute for the maintenance of the Sagamore trails.

Death Brook Falls Trail

Death Brook falls is a scenic spot about a quarter-mile from Route 28, across the highway from Golden Beach Campground. The falls is most attractive in spring and fall, when there is plenty of water in the stream and the foliage of deciduous trees and shrubs does not obscure visibility. Often in summer the stream is reduced to a trickle, and foliage reduces the scenic quality of the area. The falls is reached by walking down a former road, which may have been built when Route 28 was constructed in the 1920s. Rock for the highway project apparently was quarried from the ledge immediately west of the falls (Wayne Blanchard, personal communication). Stone from the site may also have been used in fireplaces for one or more of the nearby great camps built by William West Durant (Bob Gibson, personal communication). The road to the falls, which is gated and not marked as a trail, traverses a large grassy clearing, affording motor vehicle access to the septic system for the Golden Beach Campground. Beyond the clearing, the former road serves as an unmarked trail that proceeds through the woods to the falls. The surface of the road is wide and firm with fairly gentle slopes. One section has a grade of sufficient steepness to pose a significant obstacle for people with disabilities using wheelchairs. Just before the falls there is a stretch usually submerged beneath a shallow pool of standing water which has been bypassed by a short path. People intent on discovering the view from the top of the falls have developed paths along both flanks. The paths are steep and show evidence of substantial erosion. Another path taking a more gentle approach to the top of the falls marked with flagging was recently discovered. A former road branches off the route to the falls, heading southwestward. This road, which may be the "winter road" shown on an 1897 map made for William West Durant, as well as a salvage logging road used in the 1950s, is a good trail apparently used by hunters for access to the interior. There is no established parking area on Route 28, though there is room to park outside the road shoulder.

Designating the former road to the falls as a foot trail would afford highway travelers, local residents and visitors to the Golden Beach Campground an easily accessible opportunity to enjoy a scenic spot. With some work the trail could be made accessible to people with mobility impairments. The designation of the trail would require only the installation of trail markers, the removal of a limited amount of blowdown, and the construction of a wheelchair-accessible foot bridge over the wet area near the end of the trail.

The implementation of the trail proposal would require that a number of issues be addressed. The campground septic system was constructed in 1966 and was included within the BRW by mistake. Originally considered for reclassification, the system

recently was discovered to need rehabilitation. When funding becomes available, a new system will be constructed on the north side of Route 28, the existing system will be disconnected, and the site will be restored. Until the septic system project is completed, the first part of the road will continue to afford administrative motor vehicle access to the septic system.

Beyond the septic system clearing is a former gravel pit where, in the past, concrete fireplaces removed from the campground at the end of their useful lives were deposited. There are a number of abandoned cars along the former road, and not far from the falls a substantial amount of refuse is visible throughout an area of what appears to be an old landfill. To the extent possible, the various types of solid waste should be removed. The consolidation and burial of the fireplaces on site would conform with solid waste disposal regulations. The landfill area has been disturbed by people illegally digging, probably searching for antiques. Though the refuse appears to be no more than fifty years old, its historic value would be determined before a disposal decision were made. The complete removal of the contents of the landfill could require major excavation and the removal of a significant number of trees. Therefore, only the material near the surface should be removed. After the proper disposal of the fireplaces, cars and refuse has been completed, a boulder barrier with sufficient space for the passage of wheelchairs will be placed across the road at the wilderness boundary.

Once designated and advertised with a roadside sign, it is likely that this short, easy trail to a scenic destination would attract visitors with a variety of physical abilities. It is possible that use levels would increase substantially. With improvements to the trail surface through the removal of obstacles and minor grading with hand tools where necessary, the construction of an accessible bridge over the wet area and the construction of accessible parking, this trail could become an attractive destination for people with mobility impairments. The trail surface is relatively firm, stable and level. Therefore, it should be able to sustain relatively heavy foot and wheelchair traffic without developing erosion problems.

Because of the trail's accessibility and visibility adjacent to a State highway, it is likely that visitors would expect and tolerate a relatively high level of interpersonal encounters along the trail and at the falls. In light of the characteristics of the trail and its location on the periphery of the BRW, managers would not consider solitude to be a major management objective. However, because visitors would be confined to a small area at the end of the trail, a moderate level of use could cause visitors to experience a sense of crowding. Therefore, the capacity of the trailhead parking area should be limited. Because few visitors would travel beyond the falls, use of the trail would not significantly degrade the wild character of the interior of the BRW. A trail register would provide valuable information about use levels and trends.

Management objectives of great importance for the trail to Death Brook Falls would be resource protection and visitor safety. Even moderate increases in public use could cause soil and vegetation impacts to exceed acceptable levels without action to discourage visitors from indulging the urge to climb the banks adjacent to the falls. Hiking to the top

of the falls could expose visitors to the risk of injury from falling. Visitors should be educated through signs posted at or near the trailhead about the need to protect the natural character of the area. In addition, managers should investigate the desirability and feasibility of installing a suitable barrier at the end of the trail below the falls to serve as a clear indication of the end of the trail.

The trail is near but not within a historical deer wintering area located to the northeast. No occurrences of rare species or other significant habitats in the vicinity of the trail are on record with the Natural Heritage Program or the Bureau of Wildlife.

ACTIONS

- Determine the historic significance of the solid waste material near the trail to Death Brook Falls. If it is determined not to be significant, remove the material near the ground surface, and transport it to an approved disposal site. Restore the area to natural contours and seed with native grasses.
- Remove discarded cars and transport them to an approved disposal site.
- Consolidate discarded fireplaces against the face of the former gravel pit and bury them with natural soil material. Grade the area to natural contours and plant a mixture of native tree seedlings.
- Mark and maintain the former road from Route 28 to Death Brook Falls as a class IV foot trail. Install one wheelchair-accessible bridge over the wet area near the end of the trail. Secure an APA wetlands permit if required. Use blue “foot trail” markers.
- Make minor improvements to the trail surface using hand tools to remove obstacles for people with disabilities. Modify the gate at the trail entrance to allow the passage of wheelchairs.
- Install a sign in an unobtrusive location near the beginning of the trail to educate visitors about the need to protect the area of the falls by not walking beyond the end of the trail.
- After the fireplaces, cars and refuse along the trail have been removed, install a boulder barrier with space for the passage of wheelchairs on the trail at the southern edge of the clearing for the Golden Beach Campground septic system. Should the septic system be moved to another location, move the barrier to the beginning of the trail on Route 28.
- Investigate the desirability and feasibility of installing an unobtrusive barrier of natural materials to serve as a visual indication of the end of the trail.
- Install an accessible privy at a suitable location.

Slim Pond Trail

Slim Pond (R-P 302) is stocked with brook trout and brown trout. To reach it, anglers park in an unpaved pulloff on the south side of Route 28 located approximately 0.9 miles east of the entrance to Golden Beach Campground. They follow a path that is an old road for much of its length, then just a dimly visible track climbing steadily through the trees, marked variously by blazes, paint spots and plastic ribbon. A bridge that appears to be

constructed of fallen logs crosses Death Brook. The path is approximately 2.5 miles long. It appears in places that there may be more than one route. There is one good tent site near the southeast shore of the pond. Hunters follow the trail during big game season on their way to interior tent sites for which hunter camping permits have been issued for many years. Because the physical impacts from trail use are minimal, it is assumed that the trail is lightly used.

If properly located, marked and maintained, this relatively short trail along gentle terrain to a scenic destination would continue to provide an attractive recreational opportunity for local residents and tourists, including visitors to the Golden Beach Campground. It would afford access to the pond for fishing and camping and serve as a jumping-off point for hunters. It would constitute the only trail penetrating any distance from the north side of the BRW west of the trail to Wilson Pond, whose trailhead is approximately 5.6 miles east. While providing recreational access, the trail would end at the pond, preserving a large trailless area in the unit's interior.

Because much of the existing trail route follows an old road, the impacts and costs of trail construction would be limited. However, in many places the old road that constitutes the trail crosses wet areas. Though some of these wet crossings could be addressed effectively through ditching, major wet areas would best be avoided through the construction of new trail on drier, firmer soils upslope. Trail route selection and construction would minimize wetland impacts. No large trees, and few if any small trees would have to be cut.

Choosing the single best route for the trail away from wet areas and clearly delineating it could reduce the natural resource impacts of trail use. However, the construction of a typical trailhead on a State highway with a sign advertising the trail could lead to a substantial increase in use, with attendant increases in physical, biological and social impacts. Use levels could increase to the point at which the management goals for the unit had been violated. To reduce the potential impacts of increased use and preserve a sense of discovery for visitors, it is proposed that the parking area not be improved, and the trail not be advertised through the posting of signs or the installation of a trail register at locations that are visible from the highway. With limited roadside visibility, it is anticipated that the trail would not sustain a substantial increase in use after construction and marking, and the levels of use would not significantly degrade the wilderness character of the BRW. Because the character of the trail and the nature of its destination are similar to a number of trails available locally and regionally, it is expected that most visitors to the pond would be residents and tourists from the local area, including those staying at the Golden Beach Campground.

It is likely that most use would occur during the spring fishing season, with occasional hiking, fishing and camping use occurring through the summer and fall. Undoubtedly the Slim Pond trail would continue to be used for hunting access during the big game season. Hunting parties would camp at the tent site established on the pond or at interior tent sites in the general area surrounding the trail. Though most of the trail would have gentle grades making it ideal for cross-country skiing, the final half-mile would climb fairly

steeply and would not easily be negotiated by skiers. Therefore, it is likely that trail use by skiers would be light. An occasional winter visitor would walk the trail to the pond on snowshoes. It is likely that opportunities for hiking and camping in solitude would be plentiful during most of the year. A trail register would provide valuable information about use patterns and trends.

Slim Pond may be reclaimed and stocked with a heritage strain of brook trout. This action would be expected to increase spring angling use of the pond for three to ten years, beginning about two years after the reclamation. In keeping with the objective of maintaining a high degree of solitude in the BRW, the Department would not publicize the reclamation effort or otherwise single the pond out as a brook trout fishery.

The Slim Pond trailhead and approximately the first half-mile of the trail are near the edge of a large historical deer wintering area. However, because winter use of the trail is expected to be very light, and the majority of the wintering area is not affected by trails or the presence of people, it is expected that winter trail use would not have a significant impact on deer survival. Research and monitoring would provide needed information about deer behavior and the impacts of public use in the area

No occurrences of rare species or their habitats in the vicinity of the trail are on record with the Natural Heritage Program. Natural Heritage records include a large area of old growth forest whose northern boundary is approximately a mile north of Slim Pond. Because few visitors would travel far from the trail and the shore of the pond, public use is not expected to infringe significantly on the operation of natural processes in this area, which is contained in the largely trailless interior of the unit. Research would be needed to more accurately characterize use impacts.

An unmarked trail less than a half-mile long connects Slim Pond with Bear Pond, which is stocked with brook trout. Visitors will be allowed to discover this wilderness trout pond without the aid of a marked and maintained trail.

ACTIONS

- Mark and maintain a trail from the existing parking area to Slim Pond as a class III foot trail. Use blue “foot trail” markers. Where the existing path crosses major wet areas, relocate the trail to drier, more stable soils upslope. Manage minor wet areas through the use of waterbars, ditching and bridging.
- Do not mark or maintain a trail from Slim Pond to Bear Pond.

Wilson Pond - Cascade Pond Crossover Trail

A former carriage road can be seen connecting the Wilson Pond and Cascade Pond trails. It is part of a major road that ran from Indian Lake to Eagle Lake, referred to as the “Old Cascade Wagon Road” on a 1901 map showing lands of William West Durant’s Forest Park and Land Company. The part of the route between Cedar River Road and Stephens Pond, shown as a trail on the 1903 Blue Mountain USGS topographic map, later became

the NP Trail. The section of the road between the two marked trails is about 1.6 miles long. It departs from the Wilson Pond trail just south of the point where the trail crosses the stream that flows from Wilson and Slim Ponds to Rock Pond. It heads southeastward, climbing fairly steeply at first, then leveling out and proceeding over fairly gentle terrain until it intersects the Cascade Pond trail.

The entire length of the old road between the two trails is discernible on the ground. Reconnaissance revealed that the route crosses generally well-drained soils not associated with wetlands, and no active soil erosion or wet areas were evident. Two small streams and the outlet to Mitchell Ponds flow across the route. There is little evidence of use or unauthorized trail maintenance.

By linking the Wilson Pond and Cascade Pond trails, marking and maintaining the crossover trail would increase recreational opportunity by affording alternate routes to existing trail destinations from existing trailheads. The adoption of the crossover trail would provide a trail connection between Wilson, Cascade, Stephens and Rock Ponds and Lake Durant. It would increase hiking opportunities, especially for residents and tourists staying near the hamlet of Blue Mountain Lake and visitors to the Lake Durant Campground. The trail would provide access for hunters. Because the trail would entirely follow an existing route, trail construction would consist largely of blowdown removal, brushing and marking. No trees would have to be cut. Foot bridges over two small streams and the outlet to Mitchell Ponds would be constructed to protect stream banks. Some waterbars and ditching might be needed to protect soils on steep sections on the west end of the trail.

It is difficult to make accurate public use projections for new trails. It is anticipated that, if created, the crossover trail would be lightly used, and would not significantly degrade the wilderness character of the BRW. While it is possible that the availability of alternate destinations from existing trailheads provided by the crossover trail would attract some additional use of existing trails and their destinations, it is expected that most use of the crossover trail would occur through the redistribution of historical use patterns. The trail would be used during the spring fishing season, throughout the summer and fall by hikers, campers and anglers, and during the big game hunting season. Most of the trail would be excellent for cross-country skiing. However, the steep section on the west end of the trail would make it unattractive for most skiers. When the trail route is laid out on the ground, opportunities to reduce trail grade through the use of switchbacks will be investigated. Nevertheless, it is expected that in winter the trail would be used lightly by skiers and those traveling on snowshoes. Because it is not expected that the creation of the crossover trail would significantly increase recreational use levels, it would not significantly reduce opportunities for solitude on existing trails or at existing destinations. The probability that hikers would encounter other parties on the trail would be low during most of the year. The trail would be located in a part of the unit where trails already exist, and therefore would not reduce the extent of the large trailless area of the unit west of Wilson Pond.

The west end of the crossover trail falls within a large historical deer wintering area. The same area is crossed by the Wilson Pond trail. However, because winter use of the trail is expected to be low, and the majority of the wintering area is not affected by trails or the presence of people, it is not likely that winter trail use would have a significant impact on deer survival. Research and monitoring would provide needed information about deer behavior and the impacts of public use in the area.

No occurrences of rare species or their habitats in the vicinity of the trail are on record with the Natural Heritage Program. Because use levels are expected to be low, and few visitors would travel far from the trail, public use is not expected to infringe significantly on the operation of natural processes in this area. Research will be needed to more accurately characterize use impacts.

ACTION

- Mark and maintain the old road connecting the Wilson Pond and Cascade Pond trails as a class III foot trail. Install three foot bridges. Use yellow "foot trail" markers.

Sprague Pond Trail

Because it is stocked with brown trout and is reached by hiking along a relatively short, easy trail, Sprague Pond is one of the most popular fishing destinations in the BRW. Most fishing use appears to be day use. The unmarked trail leads 0.4 miles to the pond from Cedar River Road. A spur trail about 130 feet long leads to the fish barrier dam on the pond's outlet. Visitors park in clearings along the side of the road. The trail once was a road and has retained a smooth, hard surface. It has minimal grades, is fairly wide and has relatively few obstacles. Where the former road reaches the pond, an unmarked path proceeds northward along both the east and west shores. Both paths become indistinct as they proceed northward, until they are no longer discernible. The shoreline paths are close to shore and are not in suitable locations for official trails. Public use statistics of the Sprague Pond trail are not available. Department staff report that in recent years usually no more than three or four cars have been observed parked at the trailhead at one time, though occasionally more cars have been seen. The pond receives the highest visitation levels during the spring after brook trout season opens in April. The occasional winter visitor travels to the pond on skis or snowshoes.

The designation of the trail to Sprague Pond would allow a relatively short, attractive existing trail to a scenic destination and favored fishing spot to be maintained. The only task required would be the installation of trail markers. Relatively few people camp at Sprague Pond, and no tent sites have been designated. However, to direct campers to suitable camping locations, two tent sites will be designated along the shore of the pond. Suitable trail routes constructed to the designated sites would afford access.

The character of the trail to the pond makes it a good candidate for use by people with mobility impairments. However, even though the trail is firm and relatively smooth and

level, there are numerous rocks, roots and short steep pitches which are significant obstacles, especially for people in wheelchairs. Even the grasses that have grown on the surface of the former road outside the width of the foot trail would be difficult for people in wheelchairs to negotiate. With minor modifications, including moving smaller rocks, removing roots, minor grading and applying limited amounts of fill at specific locations, the trail could be made suitable for people with mobility impairments. The most difficult section of the trail is the last 175 to 200 feet to the shore of the pond, where there are numerous large rocks, many of which could not be moved without great difficulty. It would take the application of substantial amounts of natural fill where the rocks could not be moved to allow a person in a wheelchair to proceed to the pond, where he or she could be assisted into a boat. It is possible that a spur trail heading westward that leaves the main trail just before the rocky stretch could be improved and directed to a location where an accessible tent site could be constructed.

Sprague Pond is less than a half-mile from a public highway, and the trail to the pond makes for an easy walk on gentle terrain with few obstacles. The pond is nearly on the edge of the wilderness. Therefore, it is likely that trail users generally would expect and tolerate a higher number of interpersonal encounters than visitors to more isolated trails with more remote destinations. While affording opportunities for solitude is an objective of management throughout a wilderness area, the objective is relatively more important in the interior than near the periphery or along major trail corridors. Because of the Sprague Pond trail's peripheral location and accessibility, managers would consider higher numbers of trail encounters among visitors to be acceptable than at more remote locations. Nevertheless, it is likely that use levels on the Sprague Pond trail, once designated, would not preclude opportunities for solitude throughout the year.

Should the trail to Sprague Pond be marked, a parking area constructed and a trailhead sign installed, it is likely that use levels would increase. Its location on a secondary road would offer some protection from overuse, since no sign advertising it would be installed on Route 28. Probably most use would continue to be fishing-oriented, with some camping throughout the spring, summer and fall. Use of the trail by those interested in an easy hike or ski to a scenic pond likely would be limited mostly to local residents and tourists. Improvements to the last section of trail, if feasible, could lead to increased use by people with disabilities. Because of its peripheral location, the Sprague Pond trail would not penetrate far into a trailless area approximately four miles by two miles in extent between Sawyer Mountain and Stephens Pond, and so would not significantly degrade the wilderness character of the BRW. Trail registers would provide valuable information about use patterns and trends.

There are no occurrences of rare species, deer wintering areas or other significant habitats in the vicinity of the trail on record with the Natural Heritage Program or the Bureau of Wildlife. Members of the Susquehanna Chapter of the Adirondack Mountain Club report that small purple fringed orchids have been found near the pond.

ACTIONS

- Mark and maintain the old road to Sprague Pond as a class IV foot trail. Use red "foot trail" markers.
- Extend the trail along the shore of the pond on one or both sides to tent sites to be designated. Choose routes for the shore trails well removed from the water's edge. Avoid disturbance of a population of small purple fringed orchid reported to be near the pond.
- Make minor improvements to the trail surface using hand tools to remove obstacles for people with disabilities. Investigate ways to increase the accessibility of the final 200 feet of trail to the edge of the pond by addressing obstacles, either through modification of the existing trail or relocation, in ways that would conform with APSLMP wilderness guidelines. Implement improvements if feasible.

TRAILS TO BE RELOCATED

Northville-Lake Placid Trail

PRESENT CONDITIONS AND ASSUMPTIONS

Heading northward along the west shore of Cedar River Flow, the Northville-Lake Placid Trail emerges from the woods onto Limekiln Lake-Cedar River Road near the Cedar River entrance of the Moose River Plains Wild Forest. The trail continues northeastward along the road for seven and one-half miles until it leaves the road and heads northwestward through private property, formerly owned by McCane, then through property owned by Finch, Pruyn and Company, to the Blue Ridge Wilderness. The part of the route through the private parcels is not secured by easements or written agreements. In 2004 the new owner of the former McCane's Resort decided to allow only through hikers to cross his land, and only until the trail is relocated. He ceased to allow parking. The trail swings around the west side of Stephens Pond and enters the Lake Durant Campground, proceeding along a truck trail to campsite number 3. From there the trail follows the campground road, crosses a bridge over the Rock River at the east end of Lake Durant into the Blue Mountain Wild Forest and emerges onto a large paved parking area on Route 28. It is the only trail that passes all the way through the Blue Ridge Wilderness.

The Northville-Lake Placid trail was constructed by the Adirondack Mountain Club and opened in 1923 as a foot trail. The part of the trail now within the BRW entirely followed the route of former carriage roads. A major Department goal for the NP Trail is to relocate segments of the trail that involve walking on roads now open to motor vehicles off those roads and into the woods. A major candidate for relocation is the segment of the trail on Cedar River Road. The need for relocation is made urgent by the wish of the new owner of the former McCane's Resort to remove the trail from his property.

OBJECTIVES

There is as yet no formal policy governing the management of the Northville-Lake Placid trail. The following objectives have been developed to guide the process of selecting a new route for the trail where it now follows Cedar River Road. The objectives reflect the goal of maximizing recreational values and the stability of the location of the route while minimizing environmental impacts and keeping costs within reason.

- Minimize the length of the trail on roads open to motor vehicle use.
- Minimize the length of the trail open to conflicting recreational uses.
- Maximize the length of the trail on State land rather than private land subject to uncertain landowner permission or activities that would affect the scenic qualities of the trail corridor.
- Minimize the total length of the trail.
- Find a trail location that minimizes the potential for impacts on soils, wetlands, significant habitats and rare species.
- Use old roads for the trail route to minimize the cost of trail construction, but build new trail if desirable to reduce trail length, reduce significant use conflicts, avoid wet areas or significantly improve the hiking experience.
- For ease of walking, minimize the length of trail in steep sections and minimize variation in elevation.

ALTERNATIVES

The process of selecting a new route for the NP Trail involved a comparison of a number of alternatives (Figure 14). The alternative analysis is presented in Appendix 14. To assure that the development of the list of alternatives would be comprehensive, the search for the best route was not confined by unit boundaries. The Department convened a meeting in December, 2001 involving the coordinators of the UMPs potentially affected by relocation proposals and a number of individuals and organizations with interest in the trail. Meeting participants presented and discussed a number of alternative routes. The discussion of alternatives builds upon the results of the meeting, considering each alternative in light of the objectives developed for the trail, and concludes with the selection of a preferred alternative.

In describing and comparing the alternative routes included for discussion, the planning team benefitted from the extensive knowledge of field conditions provided by Department staff and interested volunteers. Significant segments of most of the alternative routes have been scouted in the field. However, end-to-end field surveys in sufficient detail for complete trail layout were not conducted. Therefore, the alternative analysis includes consideration of hypothetical locations of some route segments and involves a comparison of recreational characteristics, practical considerations such as land ownership, and available ecological information, such as information about rare species and significant habitats from the records of the Natural Heritage Program,

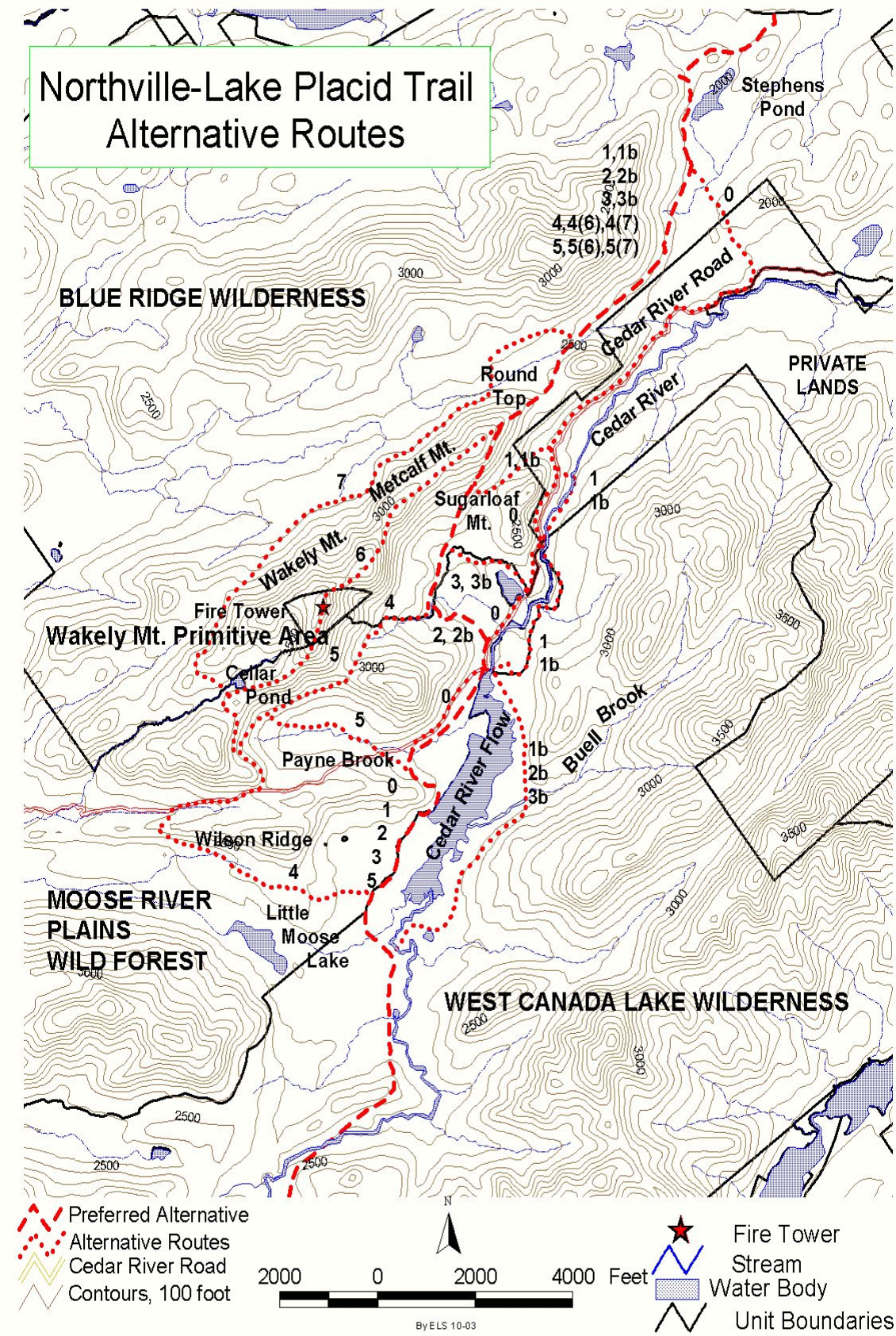

Figure 14. Northville-Lake Placid Trail Alternative Routes

regional mapping of deer wintering areas, and wetlands. The actual route of the preferred alternative will depend upon the results of a field assessment of topography, soils, vegetation and wetlands. Should detailed field reconnaissance reveal conditions that vary significantly from the assumptions made in this analysis, the planning team will revisit the alternatives and decide, in consultation with APA, whether to modify the preferred route or select another route, and whether to amend the UMP.

LEAST COST PATH ANALYSIS

Least cost path analysis is a GIS tool that locates the path between two locations that costs the least to traverse, where cost is a function of time, distance, or some other criteria defined by the user. Staff of the UMP-GIS Consortium have developed a least cost path tool to assist in the development of management proposals for UMPs. The tool was not available when the original NPT alternative route analysis was conducted. It became available before this plan was finalized, and so was used to test the results of the original analysis. Application of the tool supported the preferred alternative, and suggested possible refinements to the location of the route that should be investigated when the trail is laid out in the woods. A description of the least cost path approach is presented at the end of Appendix 14. The routes selected by the tool are shown in Appendix 20, Map 4.

DESCRIPTION OF THE PREFERRED ALTERNATIVE

Starting from the south, the new route would follow the existing route northerly along the west shore of Cedar River Flow to Payne Brook within the MRPWF. There the route would depart from the existing route, heading northeasterly to Wakely Dam through the woods on a new trail parallel to Limekiln Lake-Cedar River Road and southeast of it. The route may follow an old road reported to lie between Limekiln Lake-Cedar River Road and the shore of the Flow. The route would continue northerly on Cedar River Road to the Wakely Mountain trailhead, then shoot up the Wakely Mountain trail for approximately one mile. It would leave the Wakely Mountain trail, heading northerly on an old road known as the Gould road. The trail would leave the Gould road and the MRPWF and head northerly into the BRW on an old spur road along the southeasterly flank of Metcalf Mountain. From a point where the old road becomes indistinct, new trail would be constructed just inside the State land boundary going northeasterly. The route would pass through the notch between Metcalf and Round Top Mountains and pass on the north side of Round Top, work its way along the foot of Blue Ridge and intersect the existing trail at a point south of Stephens Pond.

TRAIL CONSTRUCTION

Some of the proposed NP Trail reroute is within the BRW and some in the MRPWF. Construction on the parts of the trail within each unit would not begin until after the UMP had been adopted. The precise location of the relocated trail would be determined after detailed field reconnaissance work. Segments of the trail that would follow former roads generally would require little more work than cutting brush and posting trail

markers. Foot bridges might be required in some locations. Field conditions might necessitate that parts of old roads preliminarily designated as part of the trail be bypassed in favor of constructing new trail on sites with better-drained or more stable soils. In general the trail would be located with the goal of minimizing the need for foot bridges and drainage structures, tree cutting, long-term maintenance needs and impacts to soils, wetlands, significant habitats and rare species.

The construction of the new route consists of two segments: the relatively short segment south of Wakely Dam between Limekiln Lake-Cedar River Road and the shore of Cedar River Flow, and the relatively long segment between the Wakely Mountain trail and the trail south of Stephens Pond. The segment south of Wakely Dam, within the MRPWF, may follow a former road reported to lie between the flow and Limekiln Lake-Cedar River Road. Should the route of the former road not prove appropriate, it is expected that new trail construction would not be difficult, because the area generally appears to be characterized by gentle slopes and open upland forest. The longer segment would follow the Wakely Mountain trail for the first mile, then the Gould road for a little less than a mile, all within the Moose River Plains Wild Forest. Though it is likely that the trail would follow the Gould road, it is possible that relocations would be necessary to bypass wet areas. The relocated trail would then enter the BRW, following a former road for more than a mile before approximately five miles of trail would be newly constructed.

Before trail construction would begin, the Department would consult with APA in the development of a detailed work plan and would obtain all necessary permits.

PROJECTED USE OF THE PREFERRED ALTERNATIVE ROUTE AND POTENTIAL IMPACTS OF USE

It is not possible to accurately project use levels of trails yet to be constructed. However, general predictions can be made from a review of characteristics such as location, access, land character and the use patterns in nearby areas.

The proposed reroute of the NP Trail within the Blue Ridge Wilderness would be much more attractive to hikers than the present route on Cedar River Road. However, the amount of use by through-hikers would not be expected to rise significantly from presently low levels. Because the hike from the Wakely Mountain trailhead to Stephens Pond would be approximately eight miles long, use of that segment by people other than through-hikers is also likely to be relatively low. With the end of access from Cedar River Road across the former McCane's Resort, local access to Stephens Pond undoubtedly would shift almost entirely to the north from the Lake Durant Campground. Trailhead registration at the campground, which has remained steady for many years, was 1,252 in 2003. It is likely that registration numbers would increase with the anticipated shift in local use, but it is not expected that the increase would be significant.

Winter use of all parts of the relocated trail segment would be expected to be low. Cedar River Road is a major snowmobile route and is not plowed beyond a fee parking lot maintained by the Town of Indian Lake located approximately four and a half miles

northeast of the Wakely Dam. Depending on the characteristics of the trail once built, it might prove attractive to a hearty few as part of a rugged long-distance cross-country skiing trip, though the trip would be more than 12 miles long, require the parking of one car at the fee parking lot on Cedar River Road and another on the Route 28 parking area, and involve sharing three or four miles of the unplowed Cedar River Road with snowmobiles. The low level of winter use of the relocated trail would not be likely to have significant impacts on wintering deer.

ACTIONS

- Construct the new route of the Northville-Lake Placid Trail as described in alternative 2 and maintain it as a class IV foot trail. Post blue NP Trail markers. Post a guideboard at the intersection with the Wakely Mountain trail.
- Close the part of the trail between the former McCane's Resort and the new trail. Remove all signs and trail markers. Install suitable barriers at both ends.
- Post signs and trail markers within the Lake Durant Campground to clearly delineate the route of the NP Trail to hikers. (Lake Durant Campground UMP)
- Posts signs on the trail to indicate the boundary between the Lake Durant Campground and the BRW.

NEW TRAILS TO BE CONSTRUCTED

This section describes a proposal for the construction of a new trail for addition to the system of trails marked and maintained by the Department.

The following proposal for a new trail from Cellar Pond to the summit of Wakely Mountain also will be included in the UMP for the MRPWF.

Wakely Mountain Trail from Cellar Pond

The existing trail to the summit of Wakely Mountain climbs directly up the fall line on the mountain's southeastern flank. Because trail use levels are relatively low, soil erosion has proceeded at a lower rate than it has on more heavily used trails with similar slopes and soils. However, erosion is evident, and the rate of erosion will increase in step with increases in use. Erosion could be curtailed through an aggressive program of trail hardening, but the installation and maintenance of trail-hardening structures is costly. The topography of many mountains precludes the construction of trails with moderate slopes. However, where existing trails are sustaining significant erosion on steep slopes, alternative routes should be investigated.

A review of topographic maps indicates that a route to the Wakely Mountain summit involving a more gradual ascent might be found along the ridgeline approaching the summit from the southwest. The route would begin where the old road to Cellar Pond leaves Limekiln Lake-Cedar River Road in the MRPWF, approximately 3.5 miles from the Cedar River entrance. It would proceed along the old road approximately 1.8 miles to the pond. From the pond, a new foot trail would be constructed approximately 2.0 miles

to the summit. Aerial photographs show a former logging road heading northeastward from the pond. The final half-mile to the summit would be within the WMPA.

A reconnaissance of the proposed route revealed that it proceeds at a steady, gentle grade to the pond. It starts on a road that is not blocked and occasionally is traveled by motor vehicles to a point about 0.4 miles in from Limekiln Lake-Cedar River Road, where severe gullying impedes further motor vehicle travel. The MRPWF UMP will propose that a boulder barrier preventing motor vehicle use be installed near the beginning of the road. Mountain bikes and horses will be allowed as far as the pond. The road bed on the part presently traveled by motor vehicles is firm, with few drainage problems. For several hundred feet beyond the end of vehicle travel, the progress of the severe gullying observed could be curtailed through the installation of waterbars. Farther along the former road, occasional gullying could be arrested through similar means. The route passes through patches of hay-scented fern under an attractive forest of large hardwoods, then climbs into a forest community dominated by balsam fir, with scattered white birch and other hardwoods. From this point to the pond the former road is occupied by a dense growth of balsam fir saplings.

From the pond, a route proceeding due east to the ridgetop and along the ridge to the summit would require new trail construction. Reconnaissance did not include the former logging road, which should be investigated as an alternative route for the first half-mile of the trail. Slopes on the route along the top of the ridge between the pond and the summit are relatively steady and gentle, except for two steep sections. The use of switchbacks to limit the slope of the trail on the first section appears feasible. However, the second section farther up the mountain is very steep, and the shallow soils could make switchback construction difficult. Each steep section is only a few hundred feet long.

The topography of the ridge route offers the possibility of a trail that would climb steadily and fairly gently for almost its entire length. Unfortunately, the forest cover is uniformly dense along the entire ridge, leaving no openings for views along the route. It appears that the trail could totally avoid streams and wetlands, not requiring a single bridge. However, trail construction would be difficult, since almost the entire ridge is affected by blowdown, possibly resulting from the major wind events that have afflicted the Adirondacks since 1995. The forest floor is rough, characterized by the tip mounds left by toppled trees.

The route would be approximately 3.8 miles long, compared with the 3.0-mile length of the existing trail. The trailhead would be at an elevation of approximately 2,600 feet above sea level, compared to 2,000 feet at the existing trailhead, so the trail's total change in elevation would be 600 feet less than the existing trail. There are no occurrences of rare species, historical deer wintering areas or other significant habitats in the vicinity of the proposed trail route on record with the Natural Heritage Program or the Bureau of Wildlife. Observations during reconnaissance confirmed the results of a review of wetlands mapping, which indicated that the route would not significantly affect wetlands.

Once constructed, it is possible that the new trail would become the major route to the Wakely Mountain summit. Though it would be longer, its smaller and more gradual ascent would be an attractive characteristic to most visitors. With more gentle grades, it would be expected that the trail surface would be able to withstand higher use levels than the existing trail. The existing trail would stand as an alternate route. Though it is likely that the construction of the new route would result in some increase in the total number of people climbing annually to the summit, the physical and social impacts of trail use would be divided between two trails. Use levels and associated erosion impacts on the existing trail probably would decline. It is possible that visitors would support the retention of the existing trail along with the new trail to afford recreational variety. However, because the trail surface along most of the route of the proposed trail would be less prone to erosion than the existing trail with its steep final mile, the eventual closure of the existing trail should be considered. For three years after the construction of the Cellar Pond route, the use and condition of the two trails would be monitored and public comments would be invited. The existing trail would be closed above the Gould road intersection if the decision would be supported by an assessment of resource impacts, public use and public opinion.

ACTIONS

The actions proposed for the Cellar Pond trail to the summit of Wakely Mountain involve the MRPWF. Trail construction would not occur unless the project were included in the MRPWF UMP.

- Construct the trail from Cellar Pond to the summit of Wakely Mountain and maintain it as a class IV foot trail. Do not permit horses or bicycles on the segment from Cellar Pond to the summit. Mark this segment with yellow “foot trail” markers.
- Conduct trail construction activities after August 1 and before May 15 to protect Bicknell’s thrush, but allow blowdown removal, by chainsaw, to occur until May 24.
- Permit bicycles and horses on the trail segment from Limekiln Lake-Cedar River Road to Cellar Pond. Mark this segment with yellow “trail” markers.
- Monitor public use and resource impacts on both trails to the summit. Close the existing trail above the Gould road intersection should the decision be supported by an assessment of impacts, use and public opinion.

TRAILS NOT TAKEN

In the process of developing trail proposals for the BRW and WMPA, the planning team considered potential trail routes that are not included in the plan. Here are the potential routes and the thinking behind the decisions not to pursue them.

Winter Road to South Inlet Falls

On a map entitled, "Map of Township No. 6 and Parts of Townships No. 5 and 40 of the Totten and Crossfield Purchase, Hamilton County, N.Y., Compiled from Surveys of Duncan McMartin, Jr., S. J. Palmer and Others, 1816 to 1897, for W. West Durant," a road is shown running southwestward from the south end of Raquette Lake to the falls on South Inlet. The road is labeled, "Winter Road to South Inlet Falls." The road runs roughly parallel with South Inlet and about a quarter mile east of it. A map of the area of a salvage logging contract on file in the Northville office shows that part of the road was used in the 1950s as a logging road.

The planning team considered the possibility of marking and maintaining the old road as a foot trail that would be available for hiking, hunting access and skiing. It was thought that visitors to the Golden Beach Campground could hike to Great Camp Sagamore for guided tours. The trail is on the periphery of the BRW and would not violate the trailless character of the interior. Reconnaissance revealed that the road was clearly discernible from Route 28 southwestward for some distance. However, the road became hard to detect after about a half-mile, and was lost before it reached a tributary of South Inlet about half way to the falls. It may be that, since the road was intended for winter use, construction involved only the removal of trees and stumps to make a clear way, with little if any earth-moving. The construction of a parking area on Route 28 would be problematic because of limited sight distances. Since most of the route might not be located on the ground, more than half the length of the route could involve new trail construction. After discussion with Sagamore staff, it was not deemed likely that many campground visitors would hike the three miles to take the Sagamore tour. The lack of a significant destination and winter parking would limit winter cross-country skiing use, despite the suitability of the terrain for skiing. The old road is visible enough from Route 28 to afford access for hunting. Though some hunters would support the creation of the trail, others might find the area more attractive without a marked trail used by hikers. After deliberation, it was decided not to open the old road as a trail.

Trail from Sprague Pond to Stephens Pond

With the relocation of the Northville-Lake Placid trail and the closure of the trail north of the former McCane's Resort, the relatively short southern approach to Stephens Pond will be eliminated. It is possible that a new trail could be constructed from Sprague Pond to Stephens Pond. The new trail would require approximately three miles of new trail construction. The trip from the Sprague Pond trailhead to Stephens Pond would be approximately four and one-half miles long. Though a potential route has not been completely scouted on the ground, a review of topographic maps indicated that the route would include some fairly steep sections. Stephens Pond will remain accessible by trail from the Lake Durant Campground after the trail from the former McCane's has been closed. The new trail would provide an alternate route, but it would be longer than the existing trail from the north. Because the new trail is not necessary for access to Stephens Pond, and its construction would not conform with the objective of maintaining the

relatively undeveloped character of the unit, it was decided that the trail would not be created.

Metcalf Ridge Trail

In the course of reviewing alternative routes for the Northville-Lake Placid Trail, the planning team examined topographic maps. They observed that the topography of Metcalf Mountain might be suitable for a ridgetop route for the trail. The ridgetop route, which would have required through-hikers to climb to the summit of Wakely Mountain with full backpacks, was considered too strenuous for the NP Trail. However, the idea lingered that the route might make an attractive destination in itself. Hikers might climb to the summit of Wakely Mountain on the existing trail, walk the Metcalf ridge trail northeastward and return on the proposed new route of the NP Trail to the parking area. The route would roughly parallel the southern border of the BRW, and would not significantly infringe on the trailless nature of the interior. It was agreed that the proposal would only make sense if there were several openings in the forest cover along the ridge to make the trip worthwhile. Reconnaissance revealed that most of the ridge was enclosed in a dense spruce-fir forest. Though occasional filtered views were available, the absence of significant scenic opportunities would limit the attractiveness of the trail for hikers. Without significant tree cutting, the route would make its way tortuously among closely-spaced trees. After deliberation, it was decided not to construct a trail along the Metcalf Mountain ridge.

Sugarloaf Mountain Spur

Sugarloaf Mountain is not far to the east of the proposed new route of the NP Trail. The east side of Sugarloaf is a dramatic steep bare-rock cliff with the potential for open views to the east. In the course of mapping the potential route of the preferred alternative, it was observed that the topography appeared suitable for the construction of a short spur trail to the summit of Sugarloaf. However, aerial and field reconnaissance indicated that the nature of the summit topography and forest cover would make it difficult to find an approach route that would not pose significant safety hazards for hikers. Therefore, a spur trail to Sugarloaf will not be proposed.

Other Old Roads and Trails

The BRW is counted among the Adirondack wilderness areas having relatively few marked trails. However, as with most areas of the Forest Preserve, there are a number of old roads and trails in the BRW that are shown on old maps and remain visible on the ground. The USGS topographic maps of 1902 and 1903 show trails branching off the Wilson Pond trail to Potter Pond and Brady Pond. There is a spur from the trail to Cascade Pond to Mitchell Ponds. A road from Cedar River Road penetrated to Dishrag Pond. A trail constructed in the late 1800s led to Aluminum Pond from what is now Lake Kora. That trail is shown on a map entitled, “Map of Township No. 6 and Parts of Townships No. 5 and 40 of the Totten and Crossfield Purchase, Hamilton County, N.Y., Compiled from Surveys of Duncan McMartin, Jr., S. J. Palmer and Others, 1816 to 1897,

for W. West Durant." Neither the USGS maps or the survey map indicates a trail connection between Aluminum and Dishrag ponds. However, there is evidence that a trail connecting the roads to the two ponds was cleared in the early 1900s to allow workers to travel between the great camps and the Indian Lake area. After the 1950 blowdown, the Department was authorized to permit the salvage of down timber. The logging roads constructed for access to the salvage areas later were used for recreational access. Many of the roads are still visible, and some continue to be used as foot trails. Not long after the blowdown, a fire trail was cleared from Sagamore Lake, possibly with a spur from Lake Kora, through Aluminum Pond and Dishrag Pond to Cedar River Road, possibly at least partially following the route of the earlier trail.

A major goal of the management of the BRW is to retain its relatively undeveloped character. The adoption of some existing trails, generally located on the periphery of the area, is being proposed to provide limited recreational access. The construction of a new route for the NP Trail is a major project considered necessary to improve one of the most important recreational resources in the Forest Preserve. Even so, the selection of the route was made with the intention of keeping the large trailless interior of the BRW intact. It was thought that the adoption of more existing trails or the construction of new trails would begin to significantly encroach upon the wild character of the area, both in terms of the recreational environment and the APSLMP requirement to "achieve and perpetuate a natural plant and animal community where man's influence is not apparent." Therefore, none of the other historic roads and trails is being proposed for adoption.

TRAILLESS AREAS

Present Conditions and Assumptions

The existing system of marked and unmarked trails in the BRW is limited and largely confined to the periphery of the unit. A trailless area bounded by Wilson Pond, Slim Pond, Sagamore Lake, Wakely Mountain and the Northville-Lake Placid Trail extends approximately six miles by eight miles. A smaller trailless area–about two miles by four miles– lies between Sawyer Mountain and Stephens Pond. Though there may be unmarked trails within the bounds of these areas, it is likely that they are lightly used. An inventory of unmarked trails would provide a more accurate picture of their extent and levels of use and impact.

Goals for the management of the BRW include the maintenance of its relatively undeveloped character and the preservation of solitude as a major component of the recreational environment of the unit. The maintenance of the trailless character of the area west of the Northville-Lake Placid Trail and Wilson Pond would preserve a large tract of wilderness where natural processes would operate with a minimum of direct human influence. The large tracts of old growth forest identified within the area could be explored in an environment characterized by a high degree of solitude. Though the trailless area east of the NP Trail is relatively small, its preservation would be in keeping with the general objective of minimizing recreational development in the unit.

The areas to be accessed by the proposals to mark presently unmarked trails or construct new trails are generally not much more than a mile from the edge of the unit. Once the proposals have been implemented, the most attractive waters and vistas will be accessible by marked trail. It is likely, therefore, that most of the remaining unmarked trails within the unit will be used only for hunting and access to a few small interior ponds. The most heavily used trails are those that follow the former salvage roads leading a mile or two into the northwest region of the BRW from Route 28. It is not expected that use levels on these trails will increase significantly in the next five years. It is possible that use will decrease over time as the popularity of hunting continues to decline. Though use levels on most unmarked trails are not expected to grow to levels that would cause significant impacts to natural resources or the recreational environment, it is possible for unmarked trails to be illegally marked and maintained to the extent that management action is required. Once inventoried, unmarked trails should be monitored, and appropriate action should be taken when necessary to prevent unacceptable impacts.

OBJECTIVES

- Maintain the large trailless area bounded by Wilson Pond, Slim Pond, Sagamore Lake, Wakely Mountain and the Northville-Lake Placid Trail.
- Maintain the trailless area east of the Northville-Lake Placid Trail, west of Sawyer Mountain, and north of Sprague Pond.

ACTIONS

- Develop LAC indicators and standards for marked and unmarked trails in the BRW and WMPA.
- Complete the inventory of unmarked trails and conduct a detailed inventory of chosen LAC indicators for major unmarked trails in the BRW and WMPA after the inventory of marked trails has been completed.
- Analyze inventory information in relation to LAC standards.
- Take appropriate actions when and where necessary to keep LAC standards from being exceeded.
- Reinventory trails every five years.

TRAILHEADS

Present Conditions and Assumptions

A trailhead is defined as the starting or termination point of one or more designated trails at 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 (Van Valkenburgh, 1987). Trailheads are the nexus between public highways and the backcountry. Because they are the places where most people leave the highway to enter Forest Preserve lands, trailheads make excellent locations for providing visitor information. The design of trailhead structures and improvements, as well as the form and content of the information presented, can have a major impact on the public's

perception of the availability and character of recreational opportunities and their understanding of the guidelines for backcountry behavior. In turn, trailhead registers are important for providing information about backcountry use to the Department. Visitors who sign in help protect themselves in case of emergency and leave valuable records of public use levels and trends. Trailhead registers give managers important information about how many people enter during each season, the range of group sizes, what activities they are pursuing, where they are from and where they are going. Without trail registers, managers have little objective information about the use of an area.

Visitors receive their first impression of the Forest Preserve area they are about to experience from the nature and condition of the trailhead. For highway travelers, trailheads are often the only indication that they are passing through Forest Preserve lands. Accordingly, the Department considers the design and maintenance of trailheads a matter of primary importance. A trailhead classification system was adopted in 1987 to provide for consistency in their location and development. Class I trailheads are the most developed and are found at the major entrances to the backcountry. Class II and Class III are provided at lesser-used trails with correspondingly less development.

Five trailheads serve marked trails whose destinations are within the BRW and WMPA: the NP Trail (Lake Durant Campground), the Sawyer Mountain trail (State Route 28 right-of-way and BRW), the Cascade Pond trail (unclassified Forest Preserve), the Wilson Pond trail (State Route 28 right-of-way and private land) and the Wakely Mountain trail (MRPWF). The access point at the former McCane's Resort has been closed to all but through-hikers. No parking is allowed, and the guideboards have been removed. There are a variety of issues to be addressed at each trailhead, including capacity, safety, signage and surfacing. Because they are not on Forest Preserve lands, the design, location, installation and maintenance of structures and improvements at most of these trailheads must be done in cooperation with other agencies and landowners. Similar issues apply to the trailheads to be established for existing unmarked trails that are proposed for addition to the list of marked and maintained trails in the area: the Slim Pond trail (State Route 28 right-of-way and BRW), the Death Brook Falls trail (State Route 28 right-of-way), the Sagamore trails (BRW and MRPWF) and the Sprague Pond trail (BRW). An additional trailhead in the MRPWF is proposed for the new trail up Wakely Mountain by way of Cellar Pond. The needs of each trailhead and the actions proposed to address them are presented below.

The only trail registers present on BRW and WMPA trails are those for Wakely Mountain, Sawyer Mountain and the NP Trail on the edge of the Lake Durant Campground. Though they are valuable, trail registers are limited in the information that they provide. Many people pass registers without signing in. Periodic and comprehensive research efforts are needed to give managers a full and accurate picture of the use of a Forest Preserve management unit.

An expanded trail register structure, referred to as a class II trail register or "Storey register," originally designed by Mike Storey of the APA and later modified by Department staff, has been developed. It is intended generally for use at class II

trailheads. It contains a space enclosed with a door for a trail register and brochures, and has an open panel where regulations and other information may be posted, along with a map of the area. The display area is covered with plexiglass. The structure would be appropriate to enhance selected trailheads.

General Objectives

- Provide and manage adequate trailhead facilities to protect resource values and to accommodate visitor needs. Apply best management practices to parking area construction and maintenance.
- Design trailheads in accordance with standardized trailhead designs that eliminate the problems of supplementary signs and informational clutter.
- Indirectly manage interior use by balancing parking lot capacities to interior visitor capacities.
- Prohibit parking on roads adjacent to parking areas where necessary to control interior use.
- Mitigate parking problems with affected parties.
- Encourage partnerships with local governments and volunteers to maintain and snowplow roadside trailhead parking facilities.

General Actions

- Provide one or more accessible parking spaces in all expanded or newly constructed parking areas, consistent with the ADA.
- Install trailhead registers at all trailheads serving marked trails.
- Monitor trailhead condition and schedule regular maintenance of parking area surfacing, barriers, signs and trail registers. Remove litter as needed.
- For each trailhead, monitor interior use and parking levels throughout the year and periodically reassess parking needs in relation to interior capacity.

TRAILHEADS FOR MARKED TRAILS

Wilson Pond Trailhead

The Wilson Pond trailhead is located on the south side of Route 28, 2.7 miles west of the intersection of Routes 28 and 30 in the hamlet of Blue Mountain Lake. There is an unpaved parking area adjacent to the highway approximately 100 feet long and 30 feet wide that can accommodate about six vehicles. Though 10 cars could be made to fit by parking perpendicular to the highway, this is an informal pulloff suited to allow one row of vehicles parking parallel to the road. The parking area appears to be within the highway right-of-way. No barrier separates the parking area from the trail, though vegetation and topography appear to be effective in preventing the passage of motor vehicles. A guideboard with the wording, “Trail To Grassy Pond, 0.5 miles, Wilson Pond, 3.0 miles” is mounted on a signpost at the edge of the parking area next to the trail

entrance. There is no trail register. The land adjacent to the highway is privately owned, and the trail crosses it as allowed by deeded easement.

The Wilson Pond trail affords access to the lean-to on Wilson Pond, along with opportunities for camping at undesignated tent sites in the area accessed by the trail and the proposed Wilson-Cascade crossover trail. In addition, Wilson Pond is an attractive day-hiking destination. The parking area is plowed in winter. Winter use is low.

The parking area should be designed to accommodate the variety of uses in all seasons considered appropriate within the capacity of the area to withstand use. A parking area capacity of six cars would accommodate up to three camping parties and three day-use parties at one time, a use level that would afford significant opportunities for solitude along the trails and at interior campsites from the start of fishing season in spring through big game hunting season. The current low level of winter use is not expected to increase significantly in the next five years, so that room for more than two or three cars seldom would be needed. The existing capacity of the parking area is well balanced with interior capacity. The Department should work with DOT to pave the parking area without expanding it.

ACTIONS

- Maintain the Wilson Pond trailhead as a class II trailhead. Install a Storey register near the beginning of the trail, with permission from the landowner. Include in the display area a map and messages such as wilderness regulations and recommendations from the Leave No Trace program.
- Maintain the existing six-car capacity of the Wilson Pond trailhead parking area to accommodate day use and camping by anglers, hikers and hunters. Work with DOT to pave the parking area without expanding it.
- Replace the guideboard on the existing signpost with a sign approximately one and one-half by two feet with “Blue Ridge Wilderness” in a banner at the top and the wording, “Wilson Pond Trailhead” in two-to three-inch letters, printed on both sides. Post the guideboard on a tree close to the trail entrance.

Cascade Pond Trailhead

A road under Department jurisdiction leads from Durant Road 0.2 miles to a tent site on Lake Durant. The Cascade Pond trailhead is located on this road 0.1 mile from Durant Road. A small clearing on the east side of the road, directly across from the trail, serves as the parking area for the trail and can accommodate three cars. The parking area also serves a nearby tent site. The perimeter of the parking area is not well defined on the ground. No barrier separates the parking area from the adjacent tent site or blocks the entrance of the trail from the road. However, a narrow foot bridge across a stream prevents motor vehicle passage. A guideboard with distances to Rock Pond (0.75 miles), Cascade Pond lean-to (2.8 miles) and Stephens Pond lean-to (4.3 miles) is posted adjacent to the Department road. There is no trail register. The parking area and the beginning of the trail are situated in a Forest Preserve parcel which has not yet been

classified. However, during the preparation of the UMP for the Blue Mountain Wild Forest, it was assumed that the parking area was within that unit. The UMP called for the construction of a three-car parking area.

The Cascade Pond trail affords access to the lean-to on Cascade Pond, as well as opportunities for camping at undesignated tent sites in the area accessed by the Cascade Pond trail and the proposed Wilson-Cascade crossover trail. In addition, Cascade Pond is an attractive day-hiking destination. Since the parking area is seldom plowed, often there is no winter access to the trailhead. Those interested in skiing to the pond enter from the Lake Durant Campground.

Parking areas should be designed to accommodate the variety of uses in all seasons considered appropriate within the capacity of the area to withstand use. A total parking area capacity of seven cars would accommodate up to four camping parties, including the users of the adjacent tent site, and three day-use parties at one time. It is anticipated that the proposed parking capacity would allow a relatively high degree of solitude to be preserved on the trail and at interior camping destinations. To conform with proposed Federal regulations under ADA, one of the parking spaces should be made accessible for people with disabilities. There is a small clearing on the west side of the road to the north of the trail. It could serve as a small parking area screened from the road with minimal tree cutting and ground disturbance. Accommodating parking needs in the clearing would have less visual impact than expanding the existing parking area on the east side of the road, where additional trees would have to be cut. The existing parking area on the east side of the road could be better defined with boulders.

ACTIONS

- Maintain the Cascade Pond trailhead as a class II trailhead. Install a Storey register 200 to 300 feet down the Cascade Pond trail. Include in the display area a map and messages such as wilderness regulations and recommendations from the Leave No Trace program. This location is within the part of the unclassified parcel recommended for inclusion in the BRW.
- Construct a new parking area on the west side of the Department road in a small clearing on the north side of the Cascade Pond trail to accommodate four cars. Minimize tree cutting and maintain vegetation between the parking area and the road as a visual screen. The parking area would be within the part of the unclassified parcel recommended for inclusion in the BRW.
- Include an accessible parking space in the three-car parking area on the east side of the road, for a total capacity of three cars. Define the perimeter of the parking area with boulders. The parking area is within the part of the unclassified parcel recommended for inclusion in the Blue Mountain Wild Forest.
- Replace the existing guideboard with a sign with dimensions approximately one and one-half by two feet with “Blue Ridge Wilderness” in a banner at the top and the wording, “Cascade Pond Trailhead” in two-to three-inch letters with a directional arrow, printed on both sides, on the existing signpost beside Durant

Road. This location is within the part of the unclassified parcel recommended for inclusion in the Blue Mountain Wild Forest.

- Investigate ways to plow the access road and parking areas for winter access.

The following discussion of the parking area in the Lake Durant Campground will be included in that UMP. It is presented here to provide a complete picture of the issues affecting the BRW and WMPA.

Stephens Pond Trailhead (Lake Durant Campground)

Within the Lake Durant Campground there is a small parking area occasionally used by visitors to the BRW, mostly anglers in the spring heading to Stephens and Cascade Ponds or fall big game hunters. The parking area, split by the main campground road, can hold approximately 10 cars. Because a large parking area for the NP Trail on Route 28 is not far away, and those using the campground parking area must pay a daily fee, the campground parking area is seldom used by BRW visitors in spring and summer, when the campground is open. The parking area is regularly used during big game season, when the campground is closed.

ACTIONS

- Install a bulletin board at the parking area with a map of nearby trails and messages such as wilderness regulations and recommendations from the Leave No Trace program. (Lake Durant Campground UMP)

Sawyer Mountain Trailhead

The Sawyer Mountain trailhead is located on Route 28/30, approximately 6.0 miles east of the hamlet of Blue Mountain Lake and 2.2 miles west of the intersection of Route28/30 and Cedar River Road. The paved parking area adjacent to the highway is approximately 22 feet deep, 100 feet long on the far edge and 180 feet long on the edge adjacent to the roadbed. It could accommodate up to 14 cars parked perpendicular to the highway. However, because the parking area is designed to allow one row of cars parked parallel to the highway with a lane for moving in and out of traffic, capacity is limited to seven cars. Two DOT signs with the words, “Trailhead Parking” are posted, one on each side of the road. On a sign post near the beginning of the trail there is a guideboard with the wording, “Trail To Sawyer Mountain 1.1 mile.” A standard trail register, installed in June, 2000, stands a little farther up the trail. There is no barrier between the parking area and the trail. The steepness of the ground at the beginning of the trail is effective in preventing illegal motor vehicle use.

According to trail registration information, the highest levels of use occur in July and August. During these months, typically from five to 10 parties per day park at the trailhead, with occasional peak days when from 15 to 20 parties sign in. Since the trail is only a mile long, it is estimated that the typical length of stay for a climbing group does not exceed two hours. Therefore, it is likely that existing parking capacity can

accommodate current peak use levels. The parking area is plowed in winter. Winter use is low.

With its generally moderate grades and stable surface, the trail is capable of withstanding substantial foot traffic without significant physical impacts. In addition, it is not likely that visitors have high expectations for solitude on this short roadside trail. Therefore, it appears that there could be significant increases in trail use without unacceptable physical or social impacts. Nevertheless, even though it is not anticipated that use levels will increase markedly in the next five years, use levels should not be allowed to increase without limit. The parking area probably has sufficient capacity to accommodate present and anticipated use levels, which are considered to be within the capacity of the trail to withstand use. But to serve as an indirect control of trail use levels, the parking area should not be expanded.

Department staff intend to investigate the potential for the creation of a new trail within the Blue Mountain Wild Forest to a summit with an open view that would not require maintenance. Should the trail prove suitable, and should it be constructed after an amendment of the Blue Mountain Wild Forest UMP, the Sawyer Mountain trail would be closed. The parking area could continue to be used for access to BRW lands.

ACTIONS

- Maintain the Sawyer Mountain trailhead as a class II trailhead with a standard trail register.
- Maintain the existing seven-car capacity of the Sawyer Mountain trailhead parking area to accommodate day use.
- In addition to the existing guideboard, install a trailhead sign approximately one and one-half by two feet with “Blue Ridge Wilderness” in a banner at the top and the wording, “Sawyer Mountain Trailhead” in two-to three-inch letters, printed on both sides.
- Should the Sawyer Mountain trail be closed after the construction of a new trail within the Blue Mountain Wild Forest, remove trailhead signs and the trail register. Maintain the parking area for access to BRW lands.

The following discussion of the Wakely Mountain trailhead will be included in the MRPWF UMP. It is presented here to provide a complete picture of the issues affecting the BRW and WMPA.

Wakely Mountain Trailhead

The Wakely Mountain trailhead is located 11.8 miles down Cedar River Road from Route 28, 0.3 miles before the Cedar River entrance to the MRPWF. The trailhead is within the MRPWF. A Department access road leads 150 feet to a parking area about 100 feet long by 70 feet wide. It can accommodate from 15 to 20 cars, depending on the discipline of the visitors. On a sign post beside Cedar River Road there is a standard guideboard with the words, “Trail To Wakely Mt. Observatory, 3744 Ft. Elev., 3.0

miles." A sign hanging from the guideboard with the words, "Parking Area" and an arrow directs visitors to the trailhead. There is a standard trail register on the edge of the parking area. At present there is no barrier preventing motor vehicles from proceeding beyond the parking area along the road that forms the first mile of the trail.

The parking area should be designed to accommodate the variety of uses in all seasons considered appropriate within the capacity of the area to withstand use. Compared with other fire tower trails, the trail to Wakely Mountain is lightly used. On summer weekend days seldom more than 15 parties climb to the summit. The publication of fire tower books is likely to increase use levels. Maximum use levels probably seldom will exceed 20 parties per day during the next five years. The summit area is considered to be able to withstand the expected continuation of relatively low use levels. Though vegetation is lacking and bare soil is exposed in the core area between the tower and observer cabin, the area is level and soil erosion is minimal. The area of bare soil does not appear to be expanding. With the installation of needed erosion-control structures, the existing trail also would be capable of withstanding projected use. Needed parking capacity would be somewhat less than 20, since not all the cars belonging to those hiking to the summit would occupy the parking area at one time. Because peak use levels would be likely to occur only on relatively few days during the year, on most days parking capacity would well exceed use levels. The construction of the Cellar Pond route to the summit likely would result in a substantial reduction in the use of the existing trail. Parking demand would fall accordingly.

The parking area would be useful for other visitors to the area. The Gould road will be open for mountain biking and horseback riding. However, because of the limited length of the road, the absence of scenic destinations and the many other parking options for bikers and equestrians exploring the trails in the MRPWF, parking demand is expected to be low. The parking area also is used during the big game season for hunting access. However, the numbers of people hiking to the summit of Wakely Mountain decline significantly as big game season advances, so additional parking capacity is not required. The parking area is not used in winter, because Cedar River Road is not plowed beyond a snowmobile parking area located more than four miles northeast of the trailhead.

After the relocation of the NP Trail, it is expected that the use of the NP Trail largely would be limited to through-hikers. Many of those would be through-hikers who would camp and park in the Wakely Dam area. Therefore, the demand for parking in the Wakely Mountain parking area likely would not exceed three or four cars at a time.

It is expected that the present capacity of the Wakely Mountain parking area is larger than would be required on most days during the year, though it could approach capacity on peak summer weekends. It is likely that a smaller parking area would be sufficient after the construction of the Cellar Pond route. Parking capacity needs should be reassessed once all management proposals affecting the area have been implemented and new use patterns have become established.

ACTIONS

- Maintain the Wakely Mountain trailhead as a class I trailhead. Replace the existing standard trail register with a Storey register. Include a map and messages in the display area including regulations and recommendations from the Leave No Trace program.
- Maintain the existing 20-car capacity of the Wakely Mountain trailhead parking area.
- Install a sign approximately one and one-half by two feet with "Wakely Mt. Primitive Area" in a banner at the top and the wording, "Wakely Mountain Trailhead" in two-to three-inch letters with a directional arrow, printed on both sides, on the existing sign post on Cedar River Road. Relocate the existing guideboard to the beginning of the trail near the new Storey register.
- Reassess parking capacity needs after all management proposals affecting the area have been implemented and new use patterns have become established.

TRAILHEADS FOR UNMARKED TRAILS TO BE MARKED

Sagamore Trailheads

The system of existing trails near Sagamore Lake are served by a number of existing parking areas and pulloffs. Some are within the MRPWF. Proceeding north to south along Sagamore Road, those in the BRW are:

Cascades Trailhead: At the beginning of the Cascades trail, there is a clearing on the east side of Sagamore Road about 55 feet long that can accommodate four or five cars. The configuration of the parking area is awkward, and it is not clear how visitors are expected to park. A barrier consisting of three boulders blocks the trail, formerly a road, at a point about 75 feet from Sagamore Road. There are no signs at the trailhead, and there is no trail register. The trailhead serves both the Cascades trail and the Beaverflow trail, which is across the road within the MRPWF.

When marked as a foot trail, the Cascades trail will be open to hiking and cross-country skiing. It leads to a waterfall on South Inlet, where travelers may wade the river or cross it on the ice to connect with the Powerhouse trail. Use levels are expected to increase. The Beaverflow trail will be open to hiking, and skiing, though use levels are expected to be low. A parking area designed to accommodate five cars - the present capacity - would accommodate five to 15 day hikers at one time. However, it is expected that seldom more than two or three cars would use the parking area simultaneously. Evening and overnight parking capacity required for the relatively low level of camping use expected would not overlap with most day use and so would not require additional capacity. Though solitude would not be as high a management priority on a trail near the periphery of the wilderness, the proposed parking capacity would not preclude opportunities for solitude along the trails throughout the year. The parking area has not been plowed in winter. If the parking area were plowed, winter use would be expected to be light, seldom requiring room for more than two or three cars.

ACTIONS

- Maintain the Cascades trailhead as a class II trailhead. Install a standard trail register near the parking area.
- Maintain the Cascades trailhead parking area with its existing capacity of five cars to accommodate appropriate levels of day use and camping. Make minor modifications to more clearly define the parking area.
- Install a sign approximately one and one-half by two feet with "Blue Ridge Wilderness" in a banner at the top and the wording, "Cascades Trailhead" in two- to three-inch letters with a directional arrow, printed on both sides in a location visible from Sagamore Road.
- Install a guideboard near the barrier giving the distance to the cascades.
- Plow the parking area for winter trail access.

Pulloff: There is a pulloff on the east side of Sagamore Road between the Cascades and Powerhouse trailheads. It is approximately 70 feet long and 25 feet deep. It was constructed to aid winter traffic flow near the bridge over Sagamore Lake outlet and to store snow from winter plowing. It could accommodate three cars parking parallel to the road and afford winter access to nearby trails, should winter conditions permit.

Powerhouse Trailhead: At the beginning of the Powerhouse trail, there is a clearing on the east side of Sagamore Road about 100 feet long that can accommodate five cars parking parallel to the road. The northern two-thirds of the parking area is surfaced with crushed limestone. A barrier consisting of three boulders blocks the trail, formerly a road, at a point about 150 feet from Sagamore Road. There are no signs at the trailhead, and there is no trail register.

When marked as a foot trail, the Powerhouse trail will be open to hiking and cross-country skiing. It leads to the hydroelectric ruins associated with Camp Sagamore and on to South Inlet Falls, where travelers can wade the river or cross on the ice to connect with the Cascades trail. It connects with a number of other trails in the area. The Powerhouse trail will be available for public use as part of the network of trails in the area. Sagamore staff will lead groups on educational trips to the ruins. But because the trail has several wet segments in need of drainage improvements, the Cascades trail will be the preferred route to South Inlet Falls. In addition, the Sagamore hydroelectric ruins should be protected from excessive public visitation. Therefore, the visibility of the trailhead should be minimized. Use levels are expected to be low.

The existing parking area could accommodate five to 15 day hikers and occasional camping use. However, it is expected that it seldom would be occupied by more than two or three cars. Though solitude would not be as high a management priority on a trail near the periphery of the wilderness, the proposed parking capacity would not preclude opportunities for solitude along the trails throughout the year. The parking area has not been plowed in winter. Winter trail access should be afforded through the plowing of the Cascades parking area.

ACTIONS

- Maintain the Powerhouse trailhead as a class III trailhead.
- Maintain the Powerhouse trailhead parking area with its existing capacity of five cars.
- Do not install a trailhead sign.
- Install a guideboard beyond the boulder barrier, not visible from the road, giving the distance to the Cascades.
- Do not plow the parking area in winter.

The following discussion of the Sagamore Lake trailhead also will be included in the MRPWF UMP. The discussion of proposed actions for the MRPWF is presented here to provide a complete picture of the issues affecting the BRW and WMPA.

Sagamore Lake Trailhead and Waterway Access Site: The trail around Sagamore Lake connects with a road at both ends. Most people park at the north end in a small clearing at the beginning of the trail between the spur road that leads to the back entrance to Sagamore and the boulder barrier. The clearing is not suitable for parking and can only accommodate three vehicles. Additional cars park along the road, occasionally causing traffic congestion. Visitors should be redirected to other parking areas. There is an additional parking area not far before the beginning of the north end of the trail on the south side of the spur road within the Moose River Plains Wild Forest. Though it appears to have been constructed before the land was acquired by the State, it is not signed. It is occasionally mowed by Sagamore staff and used for parking. The area is approximately 60 feet long and 25 feet deep and can accommodate six cars. There are no signs at either parking area, and there is no trail register. There is no room for parking near the south end of the trail.

When marked as a foot trail, the Sagamore Lake trail would be open to hiking and cross-country skiing. It would connect with a number of other trails in the area. It is expected that the Sagamore Lake trail would be more heavily used than the other Sagamore trails in all seasons. Most use would be day hiking, skiing and hunter access. As a former carriage road with a firm, generally level surface, the trail is capable of withstanding substantial foot traffic without sustaining significant physical impacts. It is likely that visitors would tolerate relatively high numbers of interpersonal encounters on this accessible trail on the periphery of the BRW near Camp Sagamore, a major tourist destination. Parking for 10 cars would be sufficient to accommodate anticipated use levels, which would not exceed the capacity of the trail to withstand use.

There has been confusion among the public about the availability of Sagamore Lake for public boating use. The lake has a good fishery and is open to the public for nonmotorized boating. A short path beginning near the north entrance of the Sagamore Lake trail affords access to the lake for the launching of canoes and kayaks. The point where the path enters the water presents some difficult footing that could be improved with the placement of one or two large rocks with flat surfaces. Presently there are no signs identifying the waterway access site.

Approximately one mile long and a third of a mile wide, it is likely that ~~this~~ 166-acre Sagamore Lake could accommodate a fair number of boaters engaged in fishing or recreational paddling without causing most visitors to experience a sense of crowding. With the proximity of the lake to a public road and Camp Sagamore, visitor expectations for solitude probably would not be as high as they would be on an interior pond. However, it would be difficult to definitively establish the capacity of the lake to withstand recreational boating use without research. Department staff and Agency staff are currently involved in a working group with the task of developing protocols to assess physical, social and biological carrying capacity of water bodies as required by the Adirondack Park State Land Master Plan. Once these protocols are agreed upon, they will be used to reassess parking lot capacities for this unit management plan. The *Water Recreation Opportunity Spectrum Users' Guidebook* (Aukerman et. al. 2004) presents a scientific approach to the management of recreation on lakes, ponds and rivers. According to the handbook, "the overarching goal of WROS is to provide planners and managers with a framework and procedure for making better decisions for conserving a spectrum of high quality and diverse water recreation opportunities." The handbook describes a spectrum of six classifications, from urban to primitive, in terms of appropriate activities, settings, experiences and benefits. It lays out procedures for planning and management, including excerpts from the report, *Visitor Capacity on Public Lands and Waters: Making Better Decisions* (Haas 2002) regarding the establishment of boating capacity. A table reflecting a number of sources of information gives a series of "reasonable boating capacity coefficients," defined as "the number of water surface acres adequate for each recreational boat in a particular WROS class." Using the table to make a preliminary determination of the boating capacity of Sagamore Lake, and classifying the lake in the "rural developed" WROS class, the reasonable boating capacity coefficient would range from 20 to 50 acres per boat, giving the lake a maximum capacity of eight boats. Assuming that an average of two to four boats would originate from Camp Sagamore (Sagamore caretaker Bob Heinsler, personal communication), public parking for ~~eight~~ four vehicles would accommodate appropriate maximum public use levels. Research would be valuable in determining the relationship between visitor expectations and satisfaction once parking and information improvements have been implemented.

The total parking capacity of 14 cars needed during spring, summer and fall–10 for hikers of the Sagamore Lake trail and ~~eight~~ four for Sagamore Lake boaters–would partly be provided at the five-car parking area beside the spur road (assuming one accessible parking space and four standard spaces), with the other nine finding space in the large parking area within the MRPWF across from Sagamore's main entrance. The large parking area can accommodate up to 50 cars and serves a number of destinations. Parking capacity for six vehicles is needed to serve those interested in hiking or biking Mohegan Lake Road, Bear Pond Road, or other trails in the MRPWF, as well as those who wish to canoe or fish Mohegan Lake. Therefore, parking capacity for a total of ~~18~~ 15 vehicles is required to accommodate Forest Preserve visitors. The rest of the area is available for use by Sagamore visitors. The use of the large parking area by Sagamore tour and special event participants is permitted to help maintain the historic atmosphere of the Sagamore

grounds. The level and timing of the use of the large parking area by Sagamore guests has not significantly interfered with public use.

The parking areas near Sagamore have not been plowed in recent years. To provide access to the Sagamore Lake trail for skiing and snowshoeing, the 6-car parking area on the spur road should be plowed.

The Moose River Plains Wild Forest Unit Management Plan will assess the potential for additional public parking and improvements to the parking design and management of the existing parking area utilized by Camp Sagamore.

ACTIONS

- Maintain the parking area off the spur road to the back entrance of Camp Sagamore as the Sagamore Lake trailhead. Maintain it as a class II trailhead with a capacity for five cars, including one accessible space. Delineate the parking area with small boulders. Install a trailhead sign approximately one and one-half by two feet with "Blue Ridge Wilderness" in a banner at the top and the wording, "Sagamore Lake Trailhead" in two-to three-inch letters, printed on both sides. Install small signs with the wording, "Sagamore Lake Trail and Canoe Launch", one at the parking area and one at the beginning of the trail. Install a Storey register near the north entrance of the Sagamore Lake trail with a map and information indicating local trails, boating access and the borders of the Sagamore safety zone. This area will continue to be used as it has historically been used and will be re-assessed as part of the evaluation of parking and carrying capacity as outlined in this UMP.
- Delineate the large parking area across from the main entrance to Camp Sagamore with boulders. Install a wood railing in the center of the parking area to indicate proper parking orientation. Communicate parking information to the public through the installation of signs and through personal contact by Department and Sagamore staff.
- Install a Storey register at the large parking area across from the main entrance to Camp Sagamore with a map and information indicating local parking, trails, boating access and the borders of the Sagamore safety zone.
- Move the boulder barrier at the north entrance of the Sagamore Lake trail back to within about 40 feet of the edge of the spur road, leaving room to allow road maintenance vehicles to turn around. Leave room for the passage of wheelchairs. Install a "No Parking" sign.
- Install a guideboard near the trail entrance giving distances to the Big Slope trail, Crossover trail and the distance of the complete loop.
- Place one or two large native rocks in the water at the foot of the Sagamore Lake waterway access path to improve footing for launching boats.
- Install appropriate educational signage at the canoe launch to mitigate or prevent the spread of non-native or invasive plants.
- Plow the five-car parking area off the spur road for winter trail access.

Death Brook Falls Trailhead

The Death Brook Falls trailhead is located on the southeast side of Route 28, 9.6 miles west of the Blue Mountain Lake intersection of Routes 28 and 30. There is not a developed parking area, though visitors may park in a long, narrow clearing adjacent to the southeast shoulder of the highway. Starting about 60 feet southwest of the beginning of the trail, there is space for six to eight cars to park end-to-end. The grassy surface is not ideal for parking, in that there is a significant pitch downward away from the highway. The parking area appears to be within the highway right-of-way. There is a pipe gate at the entrance to the trail, the first part of which is a road affording access to the septic system for the Golden Beach Campground. There are no signs at the trailhead, and there is no trail register.

The existing unmarked trail to Death Brook Falls provides access for those interested in walking to the falls, occasional campers, and hunters penetrating beyond the falls to the interior. A former road branching off the trail before the falls heads southwestward for some distance. It appears to be fairly regularly used, probably mostly for day hunting access during big game season. The trail to the falls is seldom used in winter. After the trail has been marked, levels of use, probably mostly in the form of day use by those walking to enjoy the view of the falls, is likely to increase significantly. The firm, level surface, with a bridge over the wet area near the end of the trail, would be able to withstand substantial use without sustaining significant physical impacts. It is not likely that visitors to a scenic destination reached by a short, easy trail adjacent to a major highway would expect a high level of solitude. However, because visitors would be confined to a limited area at the end of the trail, they could experience a sense of crowding when sharing the site with relatively few other parties. Crowding could inspire people to disperse in pursuit of privacy, possibly leading to an expansion of areas subjected to trampled vegetation and soil disturbance. Therefore, parking capacity should be limited to discourage excessive simultaneous use. Signs asking visitors to stick to the trail and to respect the natural character of the area should be installed near the beginning of the trail.

A parking area designed to accommodate six cars, including one accessible space, would allow 12 to 18 people to be on the trail or at the falls at one time. The parking area would be amply sufficient for the limited amount of camping expected to originate from the trail, and the season of big game hunting use would correspond with decreased visitation to the falls. Winter use would be expected to be light, seldom requiring room for more than two or three cars. The Department should work with DOT to construct a paved parking area of the desired capacity.

ACTIONS

- Maintain the Death Brook Falls trailhead as a class II trailhead. Install an accessible Storey register near the beginning of the trail. Include a map and messages to educate visitors about the need to stick to the trail and protect the area of the falls by not walking beyond the end of the trail.

- Work with DOT to construct a paved parking area at the Death Brook Falls trailhead having a capacity of six cars, including one accessible space, to accommodate appropriate levels of day use and camping by hikers and hunters.
- Install a sign at the parking area approximately one and one-half by two feet with "Blue Ridge Wilderness" in a banner at the top and the wording, "Death Brook Falls Trailhead" in two-to three-inch letters, printed on both sides. Install a guideboard giving the distance to the falls on a tree close to the trail entrance.

Slim Pond Trailhead

The Slim Pond trailhead is located on the south side of Route 28, 8.3 miles west of the intersection of Routes 28 and 30 in the hamlet of Blue Mountain Lake. There is an unpaved parking area adjacent to the highway approximately 150 feet long and 25 feet wide in the center. Because the width of the parking area tapers toward both ends, most people park parallel to the highway, limiting parking capacity to eight or ten vehicles. The parking area appears to be within the highway right-of-way. No barrier separates the parking area from the trail, but illegal motor vehicle use does not appear to occur. A former road entering the wilderness from the west end of the parking area is blocked with boulders. There are no signs at the trailhead, and there is no trail register.

The existing unmarked trail to Slim Pond provides access to the pond for fishing and camping. It is used by hikers and provides access to the interior during hunting season. The parking area is plowed in winter. Winter use is low. After it has been marked, levels of all uses are likely to increase. To reduce the potential impacts of increased use and preserve a sense of discovery for visitors, it is proposed that the parking area not be improved, and the trail not be advertised through the posting of signs or the installation of a trail register at locations that are visible from the highway. A parking area designed to accommodate six cars would accommodate up to three camping parties and three day-use parties at one time, a use level that would afford significant opportunities for solitude along the trails and at interior tent sites from the start of fishing season in spring through big game hunting season. Winter use would be expected to be light, seldom requiring room for more than two or three cars. The existing capacity of the parking area is slightly larger than necessary. However, because it is expected that use levels seldom will exceed six cars, it is not considered necessary to reduce the capacity of the parking area at this time.

ACTIONS

- Maintain the Slim Pond trailhead as a class II trailhead. Install a standard trail register 200 to 300 feet down the trail.
- Work with DOT to maintain the Slim Pond trailhead parking area in its present unpaved condition without expanding it.
- Do not install a trailhead sign. Install a guideboard giving the distance to the pond on a tree close to the trail entrance, but not visible from the highway.
-

Sprague Pond Trailhead

The Sprague Pond trailhead is located on Cedar River Road 4.3 miles west of Route 28/30. There is no developed parking, but a small pulloff on the north side of the road west of the beginning of the trail can accommodate two or three cars, and another pulloff on the south side of the road east of the trail can hold four or five cars. They usually are not plowed in winter. The pulloffs appear to be within the highway right-of-way. There is a pipe gate at the beginning of the trail. The gate is nonconforming and should be replaced with a boulder barrier designed with sufficient space for the passage of wheelchairs. There is a short foot trail spur on the east side of the gate. There are no signs at the trailhead, and there is no trail register.

The existing unmarked trail to Sprague Pond provides access to the pond for fishing and camping. Because the trail is short and the fishing is good, the pond is a popular fishing destination. Levels of all uses are likely to increase after the trail has been marked. With the pond less than a half-mile from a public road and, therefore, fairly close to the edge of the wilderness, it is assumed that visitor expectations for solitude would not be as high as they would be on a pond situated farther from a highway. However, it would be difficult to definitively establish the capacity of the pond to withstand recreational boating use without research. Department staff and Agency staff are currently involved in a working group with the task of developing protocols to assess physical, social and biological carrying capacity of water bodies as required by the Adirondack Park State Land Master Plan. Once these protocols are agreed upon, they will be used to reassess parking lot capacities for this unit management plan. A parking area designed to accommodate six cars would accommodate up to two camping parties and four day-use parties at one time. With the decline of fishing pressure from spring into summer and fall, it is unlikely that hiking use would increase to the point where additional parking would be required. Some winter skiing and snowshoeing would occur, though few people would be likely to travel far to ski a trail less than a half-mile long. Therefore, total parking capacity needed for anticipated use is six cars. Research would be valuable in determining the relationship between visitor expectations and satisfaction once parking improvements have been implemented.

Because it is proposed that the trail be improved to make it more accessible for people with disabilities, the parking area should include one accessible parking space. The parking area should be constructed on the same side of the road as the trail, so that people with disabilities would not be required to cross the road. The size of the parking area to be constructed should be smaller than needed capacity in consideration of the availability of parking space in the pulloff across the road. Though there is ample room for overflow parking along the road, even outside the established pulloffs, it is not expected that use levels will grow within the next five years to the point where it will be necessary to limit interior access through the limitation of parking.

ACTIONS

- Construct a parking area on the north side of Cedar River Road west of the Sprague Pond trail to accommodate four cars, including one accessible space. Provide an accessible path from the parking area to the trail by working with the town to harden the road shoulder.
- Maintain the Sprague Pond trailhead as a class II trailhead. Install an accessible standard trail register 200 to 300 feet down the trail.
- Replace the pipe gate at the head of the trail with a boulder barrier designed to leave sufficient space for the passage of wheelchairs.
- Install a sign at the parking area approximately one and one-half by two feet with "Blue Ridge Wilderness" in a banner at the top and the wording, "Sprague Pond Trailhead" in two-to three-inch letters, printed on both sides. Install a guideboard giving the distance to the pond on a tree close to the trail entrance.

TRAILHEADS FOR NEW TRAILS TO BE CONSTRUCTED

The following discussion of the trailhead for the Wakely Mountain trail, Cellar Pond also is included in the MRPWF UMP. It is presented here to provide a complete picture of the issues affecting the BRW and WMPA.

Wakely Mountain Trailhead - Cellar Pond Route

It is proposed that a new trail to the summit of Wakely Mountain be constructed. The first part of the trail would follow an existing road to Cellar Pond, which leaves Limekiln Lake-Cedar River Road at a point 3.5 miles west of the Cedar River entrance to the Moose River Plains Wild Forest. There is a parking pulloff on the north side of Limekiln Lake-Cedar River Road, west of the Cellar Pond road, that can fit three cars. Because the Cellar Pond road climbs along the side of Cellar Mountain, there are few level areas adjacent to the road that are suitable for the construction of a parking area. The best location appears to be approximately 300 feet north of Limekiln Lake-Cedar River Road, where there is some level ground.

When the new trail is constructed, there will be two routes to the summit available to visitors. Though it is possible that the new trail, with its shorter and more gradual ascent, would become the main trail to the summit, it is not possible to predict use patterns accurately. Since a decision to close the existing trail would only be made if supported by an assessment of use, impacts and public opinion to be conducted three years after trail construction, the new trailhead should be designed with the assumption that the existing trail could remain open.

The parking area should be designed to accommodate the variety of uses in all seasons considered appropriate within the capacity of the area to withstand use. Assuming that more than half the people who would climb to the summit of Wakely Mountain would take the Cellar Pond route, it is estimated that during the next five years up to 12 parties per day would park at the new parking area. Most, though not all the parties would

occupy the parking area at one time. In addition, it is proposed that the trail to Cellar Mountain remain open to mountain bicycles and horses. But because of the limited length of the trail to the pond and the many other parking options for bikers and equestrians exploring the trails in the MRPWF, parking demand is expected to be low. The parking area also would be used by those seeking access to the interior of the MRPWF and BRW for hunting. However, because the numbers of people hiking to the summit of Wakely Mountain would normally decline significantly in late fall, when the regular big game season begins, additional parking capacity would not be required. The parking area would not be used in winter, because Cedar River Road is not plowed beyond a snowmobile parking area located 7.5 miles before the trailhead.

To accommodate expected day use hiking from spring through fall and hunting during the big game hunting season, along with occasional use by bikers and equestrians, the parking area should be designed to accommodate 12 cars, including one accessible parking space. The existing three-car pulloff on Limekiln Lake-Cedar River Road should be maintained for additional overflow parking. Parking capacity needs should be reassessed once all management proposals affecting the area have been implemented and new use patterns have become established.

ACTIONS

- Construct a parking area on the former road to Cellar Pond, about 300 feet north of Limekiln Lake-Cedar River Road to accommodate 12 cars, including one accessible parking space. (MRPWF). Maintain it as a class II trailhead.
- Install a Storey register at the north edge of the parking area near the trail. Include a map and messages in the display area including regulations and recommendations from the Leave No Trace program.
- Install a boulder barrier across the trail at the edge of the parking area.
- Install a sign on the north side of Limekiln Lake-Cedar River Road approximately one and one-half by two feet with “Wakely Mt. Primitive Area” in a banner at the top and the wording, “Wakely Mountain Trailhead, Cellar Pond Route” in two-to three-inch letters, printed on both sides. Install a guideboard giving distances to Cellar Pond and the summit of Wakely Mountain near the register.
- Reassess parking capacity needs after all management proposals affecting the area have been implemented and new use patterns have become established.

OTHER PARKING AREAS

South Inlet Waterway Access Site

There are two large parking areas, one on each side of Route 28 just to the east of the bridge that crosses South Inlet. They probably are within the highway right-of-way. The parking area on the north side, which is paved, is about 200 feet long and 20 feet deep, tapering to the road eastward. It is plowed in winter. On the south side an unpaved pulloff is somewhat more than 100 feet long and 20 feet deep, again tapering eastward. It is not plowed. Since most people park parallel to the highway, the capacity of parking area on

the north is about 10 cars, and there is room for about six cars on the south side. There is a path leading from the southern pulloff to the shore of South Inlet, where there is a waterway access site for the hand-launching of boats. Depending on the location of the highway right-of-way boundary, the launch site is either within the right-of-way or the BRW. Trees along the path are effective in preventing the launching of trailered boats. Though the path appears to be regularly used by those who launch canoes and kayaks, the path surface is fairly stable, and evidence of erosion is minimal. The launch site is not identified with a roadside sign.

Those who launch small boats from the waterway access site on South Inlet may paddle upstream, occasionally as far as the Cascades, also known as South Inlet Falls, and downstream into Raquette Lake. Impacts to soils and vegetation along the southeast shore of South Inlet, which forms the boundary of the BRW, are almost entirely lacking. There are some impacts of use in the vicinity of the Cascades, which is a fairly popular destination for boaters. However, though the numbers of boaters who launch from the Route 28 site are not known, it is thought that most boating use and attendant impacts on South Inlet originate from Raquette Lake. The path provides the only direct access to the river. Because the impacts from the small, mostly nonmotorized boats that enter from the site appear to be minimal, it is expected that the moderate increase in use that could result from the installation of a sign identifying the opportunity for canoe and kayak access would not result in a significant increase in the impacts of boating use.

Along with those who launch boats from the waterway access site, the parking areas are used by anglers who fish along the shore near the bridge and by highway travelers interested in stopping for views of the river and Raquette Lake. There is ample evidence along the shore near the waterway access site that a privy is needed.

Near the waterway access site, an unmarked path heading southward parallels the shore of South Inlet along the foot of a knoll through a stand of large red and white pine. Though there is a small clearing with a fire ring on the top of the knoll, it appears that the area is seldom used for camping.

ACTIONS

- Near the waterway access site, install a sign measuring approximately one and one-half by two feet with the wording, “South Inlet Canoe and Kayak Access” in two-to three-inch letters, printed on both sides.
- Install a privy in a location near the river access path but not visible from Route 28.
- Monitor the southern parking area and the waterway access site for evidence of soil erosion and sedimentation in South Inlet. Work with DOT to take appropriate preventive actions, such as the application of bark chips, ditching and revegetation.
- Install appropriate educational signage at the waterway access site to mitigate or prevent the spread of non-native or invasive plants.

Former Gravel Pit, Cedar River Road

A former gravel pit on the north side of Cedar River Road, approximately 1.9 miles west of its intersection with Route 28/30, was last used in 1997, when a TRP was issued allowing the Hamilton County Highway Department to stockpile gravel for a Cedar River Road maintenance project. After the project was completed, the access road was blocked with boulders, leaving room for three vehicles to park during big game hunting season. Recently a boulder was moved, and motor vehicles have been driving into the area. Two or three camping permits per year have been issued during big game hunting season for parties with camping trailers. Target shooting is in evidence in the northwest corner of the pit, and debris has been left on site. The debris should be removed, the area planted to a variety of native trees, and the barrier restored and modified to provide off-road parking space for three vehicles. The parking area will servea tent site to be designated between 100 and 150 feet of Cedar River Road, as well as day-use hunting access to the interior.

ACTIONS

- Remove debris from the target shooting area.
- Plant a variety of native tree species in a natural pattern where necessary to supplement natural revegetation throughout the area affected by mining.
- Restore the existing boulder barrier and modify it to define a parking area that can accommodate three vehicles during big game hunting season.
- Designate one tent site traditionally used near the southwest corner of the clearing that is within 150 feet of Cedar River Road.

SIGNS

Present Conditions and Assumptions

Along the highways of the Adirondack Park, Department signs indicate the entrances to the park and the locations of Forest Preserve lands, trailheads and trails. These brown wooden signs with yellow lettering have come to symbolize the Adirondack and Catskill Parks. Combined with detailed maps of the Forest Preserve, roadside signs are helpful to highway travelers. In addition, the Department produces and posts a great variety of signs that give Forest Preserve visitors information about regulations and resource conditions, recommendations about safety and minimizing use impacts, and directions and distances to destinations. Signs are posted at trailheads, along boundaries and at interior locations. To maintain a consistent look to the Forest Preserve, dimensions, materials, colors, and wording of Department signs should be standardized.

Though some signs are necessary, in wilderness they are kept to a minimum to maintain the natural character of wilderness lands and waters. In general, informational and regulatory signs are posted at access points near unit boundaries rather than in the interior. Interior signing largely is limited to guideboards at trail junctions and signs about fishing and camping regulations. Most signs in the BRW and WMPA are posted by

the Divisions of Lands and Forests and Fish, Wildlife and Marine Resources. Some trailheads and sections of the wilderness boundary are not well identified. Where it exists, trailhead signing is limited to small guideboards, or "Trail To" signs, affixed to posts or trees. The wording of guideboards is not discernible to highway travelers. There are trail registers along some trails. They are intended to collect information, though they convey little information to visitors beyond emergency telephone numbers. Sign theft and vandalism is an occasional problem near wilderness boundaries.

Objectives

- Design and locate signs and trail markers in accordance with a unified system developed for all Forest Preserve lands.
- Bring current signing into compliance with wilderness standards i.e., made of rustic materials and limited in number (APSLMP, 2001, Page 22).
- At selected trailheads, provide informational access to trails with basic maps and descriptions of trail characteristics. Otherwise, generally provide signs needed for visitor safety and resource protection rather than for the convenience of visitors. Use the minimum number of signs necessary to achieve this objective.
- Minimize regulatory signs at interior locations in favor of signs posted at trailheads or access points. Provide detailed regulatory information to visitors before they enter the unit in brochures and maps or by other appropriate means.
- Create signs that carry positive messages. Rather than simply citing a regulation, a sign should explain the reasons behind the message.

Actions

- Coordinate the design, wording and placement of all signs through the area manager.
- Prioritize trails to be assessed for accessibility and provide appropriate information at trailheads.
- Give the name of the Forest Preserve management unit, along with its classification, in all roadside directional signs and trailhead identification signs.
- Prohibit the placement of new memorial trail signs or plaques of any kind in the unit, except in conformance with existing policy. Pursue the relocation of existing memorial signs and structures off Forest Preserve lands. Should memorial signs or structures be found, pursue their removal from Forest Preserve lands.
- Post loon protection advisory signs at the Sprague Pond and Sagamore Lake. trailheads, and at trailheads leading to other waters where loons may be found to breed.
- Post standard Forest Preserve boundary signs indicating the classification of the land being identified every one-tenth mile along all highways that pass through or adjacent to the lands of the unit and at other strategic locations, such as points on trails where they pass from private onto Forest Preserve lands.
- Post signs at trail junctions, showing directions with arrows, with wording reduced to the minimum necessary.

- Eliminate sign clutter. Cluster signs on a single sign post or bulletin board placed where they are most likely to be seen by visitors.
- In general, except for guideboards at trail intersections, place informational signs on the periphery of the unit rather than in the interior. Post signs at interior locations only where necessary to protect important resources.
- Promptly replace all signs removed through vandalism or other causes.
- Update and maintain the sign inventory annually.

BARRIERS

Present Conditions and Assumptions

A number of former roads entering the BRW from various points around its periphery have been blocked to prevent the passage of motor vehicles. Other roads have not been blocked. Though illegal motor vehicle use is not a major issue in the BRW, instances occasionally have been observed by staff and reported by members of the public. The APSLMP requires that nonconforming roads be blocked "by logs, boulders or similar means other than gates" (APSLMP, p. 24). Therefore, barriers must be placed on roads not presently blocked, and existing pipe gates must be replaced with barriers of appropriate design.

Under some circumstances barriers are needed on trails. A barrier on a trail may consist of a line of boulders to deter illegal motor vehicle use or piles of brush, tree plantings or appropriate structures to direct or prevent the passage of trail users.

Objectives

- Install and maintain barriers at the wilderness boundary on all nonconforming roads to prevent motor vehicle use within the BRW and WMPA.
- Construct barriers of natural boulders large enough to prevent unauthorized removal. In each barrier associated with a marked trail, leave a space 36 inches wide in the center to allow the passage of wheelchairs while preventing the passage of motor vehicles. In situating boulders, leave room for parking where appropriate.
- Replace existing pipe gates with boulder barriers.

Actions

- Install a boulder barrier near the beginning of the winter road to South Inlet Falls at Route 28, leaving room for the parking of two cars before the barrier.
- Retain the pipe gate on the access road to the Golden Beach Campground septic system as long as the system remains active. Modify the gate location to permit the passage of people in wheelchairs. Should the septic system be moved to another location, replace the gate with a boulder barrier.

- After the refuse along the trail to Death Brook Falls has been removed, install a boulder barrier on the trail at the south edge of the clearing for the Golden Beach Campground septic system. Monitor use impacts and consider the installation of a suitable barrier of natural materials denoting the end of the trail at the foot of the falls to discourage visitors from climbing to the top of the falls.
- Restore the existing boulder barrier at the entrance to the former gravel pit on Cedar River Road east of Fletcher Pond and modify it to define a parking area that can accommodate three vehicles during big game hunting season.
- Replace the pipe gate at the beginning of the trail to Sprague Pond with a boulder barrier. Leave no room for parking before the barrier.
- After the NP Trail is relocated, close the trail segment north of the land formerly owned by McCane by installing a barrier of brush and woody debris on both ends.
- With permission from the adjacent landowner, install a boulder barrier at the wilderness boundary on the trail to Dishrag Pond. Leave no room for parking before the barrier.
- Install a boulder barrier at the wilderness boundary where the access road from private lands enters the forestry gift lands between Sugarloaf and Metcalf Mountains. Leave no room for parking before the barrier.
- Install a boulder barrier on the Gould road near the Cedar River Road beyond the parking area to be constructed.(MRPWF).
- Install boulder barriers at the beginning of each of three spur roads that enter the BRW from the Gould road in the Moose River Plains Wild Forest. Leave no room for parking before the barrier.
- Install a boulder barrier at the point where the existing trail to Wakely Mountain leaves the parking area (MRPWF).
- Install a boulder barrier at the point where the trail to Cellar Pond leaves the parking area to be constructed. (MRPWF).
- Mount and maintain posters with the wording, “No Motor Vehicles Allowed Beyond This Point” and “No Bicycles” at each barrier location, except in the MRPWF where bicycles are allowed.
- Monitor all existing barriers and repair them as soon as damage is detected.

PRIMITIVE TENT SITES

Present Conditions and Assumptions

The APSLMP defines a primitive tent site as “a designated tent site of an undeveloped character 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 on a temporary or transient basis, and located so as to accommodate the need for shelter in a manner least intrusive on the surrounding environment.” The APSLMP also provides, “Any new, reconstructed or relocated lean-tos or primitive tent sites planned for shorelines of lakes, ponds, rivers or major streams will be located so as to be reasonably screened from view from the waterbody . . .” Primitive tent sites must be “. . . out of sight and sound and generally one-quarter mile from any other primitive tent site or lean-to.” Tent sites may not be located above an elevation of 3,500 feet, except that “where physical and

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

Within the BRW, camping use is relatively low and has not led to the proliferation of tent sites. A total of 25 tent sites within the unit have been identified (see Appendix 9). Though the inventory of sites along roads, trails and bodies of water is considered nearly complete, some tent sites in the interior have yet to be included. Except for Sprague Pond, where several tent sites in inappropriate locations have become established by use[1], there are only one or two campsites, including lean-tos, on most of the waters in the unit. There are few places where existing tent sites show signs of excessive use. Most conform with separation distance guidelines. Outside of shoreline areas, there are a number of tent sites that have been used often enough, mostly during big game hunting season, to show evidence of use and warrant inventory and monitoring. However, none appears to require immediate action to reduce impacts, other than the occasional instance of long-term personal property storage. For the most part, the locations and conditions of existing tent sites are compatible with APSLMP wilderness guidelines.

Popular camping destination within the unit include Cascade, Stephens and Wilson Ponds. Each has a lean-to, and there is a need on all three to find a suitable location for one additional tent site that conforms with APSLMP guidelines. On Cascade Pond there are two tent sites close together in an open area close to the lean-to. The sites do not meet separation distance requirements. It may be possible to locate a tent site on the east side of the pond, now reached by an unmarked path. Since the lean-to also needs to be relocated, the ultimate locations of the lean-to and additional tent site must await additional reconnaissance. On Stephens Pond, the possibility of locating a tent site on a small peninsula on the west side of the pond should be investigated. It appears that it may be difficult to find a suitable location for a tent site in addition to the lean-to on Wilson Pond.

As in most areas of the Forest Preserve, the primitive tent sites within the BRW have become established through use rather than through deliberate placement and construction by the Department. The sites which are most often used and show the greatest impacts of use are those located along the shores of the unit's ponds. These sites are included in prescriptive management zone 1 where, because of the attractiveness of the sites, the impacts of use are expected to be higher than at lesser-used interior sites. A number of additional sites used primarily during the big game hunting season are scattered throughout the unit at more or less remote locations not associated with ponds. These sites are situated within zone 2.

According to regulation 6NYCRR §190.3(b), "Camping is prohibited within 150 feet of any road, trail, spring, stream, pond or other body of water except at camping areas designated by the department." Therefore, the only sites within 150 feet of roads, trails or

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[1]*It is likely that many of the sites on Sprague Pond that show evidence of use actually are day-use sites where little camping occurs. More research is needed.*

water that are approved for use by the Department are those designated by "Camp Here" disks. The regulation allows managers to designate sites near attractive camping destinations such as ponds and lakes that are situated to meet APSLMP separation distance and screening requirements and to minimize soil erosion and vegetation impacts. However, because the regulation does not restrict camping that occurs "at large," or more than 150 feet from roads, trails and water, it is possible that parties camping at large could pitch their tents closer to other parties than the APSLMP-mandated separation distances. At-large camping that occurs repeatedly in the same location can result in the development of sites having levels of soil compaction, vegetation impacts and sanitation problems that warrant management action. Though the freedom to travel and camp at will is an important characteristic of the wilderness experience, interior tent sites–those within zone 2–chosen by visitors often enough to exhibit visible signs of use should become part of the unit's inventory of primitive tent sites and should be monitored and managed to minimize impacts just as primitive tent sites close to roads, trails and water. Forest rangers should only issue a camping permit for a specific location and should require that a party requesting a camping permit for an interior site provide GPS coordinates or an accurate map location before a permit is issued.

Loons nest on Sprague Pond, and may nest on Sagamore Lake. Tent sites should not be located where their use may disturb nesting loons.

The only places within the BRW above an elevation of 3,500 feet are on Wakely and Metcalf Mountains and a very small area on the eastern end of Blue Ridge. Most of the WMPA exceeds that elevation. Because of the uniformly dense spruce-fir forest, camping has not occurred in the areas within the unit above 3,500 feet, with the possible exception of the clearing on the summit of Wakely Mountain. The summit is not an appropriate camping location, and the existing regulation prohibiting camping within 150 feet of trails is sufficient to allow the prohibition to be enforced.

Objectives

- Provide primitive tent sites for public use in compliance with APSLMP wilderness guidelines to afford opportunities for wilderness camping in desirable locations. Consider all tent sites established through repeated use to be primitive tent sites subject to APSLMP guidelines.
- Emphasize opportunities for solitude and the protection of natural resources in the selection of numbers and locations of tent sites.
- Manage resource impacts at tent sites in accordance with the desired conditions established for zones 1 and 2.

Actions

- Provide the following numbers of primitive tent sites at the following primary camping destinations. Designate or close and relocate tent sites to desirable locations that comply with APSLMP guidelines to achieve the target number of sites at each destination. Close and restore tent sites adjacent to lean-tos.

- Sagamore Lake - 2
- Slim Pond - 1
- Bear Pond - 1
- Wilson Pond - 1 (in addition to the lean-to)
- Cascade Pond - 1 (in addition to the lean-to)
- Stephens Pond - 1 (in addition to the lean-to)
- Sprague Pond - 2

- Do not designate any primitive tent sites within the unit above an elevation of 3,500 feet.
- Adopt a regulation limiting the capacity of tent sites to eight people.
- Designate one tent site in the former gravel pit on Cedar River Road 1.9 miles west of Route 28/30. Designate the site at least 100 feet from the road.
- Develop LAC indicators and standards for tent sites in the BRW and WMPA.
- Complete the inventory of primitive tent sites in zone 1 and conduct a detailed inventory of chosen LAC indicators and APSLMP compliance characteristics for all primitive tent sites in zone 1. When the inventory of tent sites within zone 1 has been completed, conduct an inventory of tent sites within zone 2.
- Issue camping permits only for specific locations. Require every party requesting a camping permit to provide GIS coordinates or an accurate map location of the tent site to be occupied as a condition of the issuance of the permit.
- Analyze inventory information in relation to LAC standards and APSLMP guidelines.
- Take appropriate actions when and where necessary to keep LAC standards from being exceeded, and close, restore and relocate tent sites that do not conform with APSLMP guidelines.
- Direct the public to appropriate tent site locations by providing information in publications and at trailheads.
- Reinventory primitive tent sites every 5 years.

LEAN-TOS

Present Conditions and Assumptions

In the nineteenth century, after a long day's excursion through woods and over water, Adirondack guides provided shelter for their tired city clients in more or less temporary structures of wood poles and bark known as lean-tos. More substantial and longer lasting designs that evolved from the original forms were adopted by the Department's predecessor agencies and built throughout the Forest Preserve. For many years, lean-tos answered a genuine need to provide shelter for backcountry travelers. Often they were built immediately adjacent to trails and close to water and firewood sources. They were sometimes clustered in scenic areas to accommodate increased visitor demand and to facilitate maintenance. Many were attended with stone fireplaces, pit privies and picnic tables. Now that lightweight tents are widely available and affordable, lean-tos are no longer essential as shelter for wilderness travelers. However, because they offer relatively

large areas for groups to congregate out of the weather, many visitors prefer them to tents. Others point out the importance of maintaining lean-tos for their value as historic Adirondack icons.

The APSLMP acknowledges lean-tos as conforming structures in wilderness. It also provides, "Any new, reconstructed or relocated lean-tos or primitive tent sites planned for shorelines of lakes, ponds, rivers or major streams will be located so as to be reasonably screened from view from the waterbody . . ." and "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." Lean-tos are not permitted above an elevation of 3,500 feet. Primitive tent sites must be ". . . out of sight and sound and generally one-quarter mile from any other primitive tent site or lean-to." Lean-to clusters, defined as groupings of more than two lean-tos within sight or sound of each other and generally separated by a distance of less than one-quarter mile, are prohibited.

There are three lean-tos in the BRW: one each at Wilson, Cascade and Stephens Ponds. The Cascade lean-to was built in 1958, the one at Wilson Pond in 1967. The Stephens Pond lean-to, first built in 1925, was reconstructed at a new location more than 100 feet from shore in 1991. Use levels at all three sites has been relatively low, and few impacts of use are evident in the vicinity of the lean-tos. Tent sites have become established near the Wilson Pond and Stephens Pond lean-tos. They should be relocated to conform with APSLMP guidelines for separation distances between tent sites and lean-tos. The Stephens Pond lean-to is more than 100 feet from the shore of the pond. The Wilson Pond lean-to is approximately 60 feet from shore. However, it is situated in a dense stand of spruce and fir, which keep it very well screened from the pond. The Cascade Pond lean-to is 40 feet from the pond's shore. It is in need of major rehabilitation work. Though it is well-screened from the pond, it should be relocated to conform with setback distance guidelines. Because there would be no view of the lake through the dense stand of balsam fir behind the lean-to's present location, the possible advantages of moving the lean-to to another part of the pond should be investigated.

Major management goals for the BRW are to preserve its relatively undeveloped character and emphasize solitude as a major component of the recreational environment. The construction of additional lean-tos in the unit could work against these goals. However, after the NPT is relocated, 12 to 14 miles of trail will separate the Carry and Stephens Pond lean-tos. Traditionally, a lean-to has been placed every six to eight miles along the trail. Therefore, the construction of a lean-to between the Gould road and Brown's Brook to serve through-hikers will be considered. APSLMP guidelines prohibiting the construction of lean-tos above 3,500 feet prevent consideration of lean-tos within the WMPA.

Objectives

- Construct no new lean-tos in the BRW and WMPA, except that one lean-to may be constructed along the new route of the NPT.
- Relocate existing lean-tos in the BRW if necessary to conform with the APSLMP.

Actions

- Construct lean-tos according to the traditional Department design with dimensions that will accommodate no more than eight people. Construct roofs using dark brown architectural shingles. Apply best management practices in lean-to construction and reconstruction.
- Limit the capacity of all lean-to sites, including associated tent camping, to eight people.
- Construct a new lean-to along the new route of the relocated NPT at a suitable location between the Gould road and Browns Brook.
- Relocate the Cascade Pond lean-to to a site that conforms with APSLMP guidelines and, if possible, has an attractive view of the pond.
- When the Wilson Pond lean-to requires major rehabilitation, relocate it to a site that conforms with APSLMP guidelines and, if possible, has an attractive view of the pond.
- Maintain the Stephens Pond lean-to in its present location.
- In addition to APSLMP guidelines regarding setback and separation distances, situate all relocated lean-tos at least 100 feet from trails where feasible.
- Communicate changes in lean-to locations to the public through the media, information and education programs, trailhead messages and personal contact.
- Remove all existing fireplaces from lean-to sites. Replace fireplaces with fire rings.
- Develop LAC indicators and standards for lean-to sites in the BRW.
- Conduct a detailed inventory of chosen LAC indicators for all lean-to sites.
- Analyze inventory information in relation to LAC standards.
- Take appropriate actions when and where necessary to keep LAC standards from being exceeded.
- Reinventory lean-to sites every 5 years.

SANITATION

Present Conditions and Assumptions

Wilderness areas must be managed to preserve natural conditions and minimize human influence. Improper waste disposal by wilderness visitors can pollute soils and water, interfering with natural processes and affecting visitor health and safety. The appearance of food and drink containers, broken glass, food scraps and human waste can severely degrade the quality of the recreational experience for visitors.

In regularly visited places, such as trailheads, tent sites and mountain summits, proper refuse and human waste disposal is of critical importance. Popular tent sites are areas of major concern. Most overnight use is concentrated around lakes, ponds and streams. As use near water increases, so does the potential for impacts to soil and water quality. Soaps, shampoos, and other man-made substances can affect the delicate chemical and

biological balance of soils and water. Visitors may contract diseases such as giardiasis by drinking water contaminated with human and animal wastes. The cleanup of broken glass and refuse is time-consuming and expensive, posing a safety risk to Department staff and volunteers.

In general, the problems of backcountry waste disposal in the Forest Preserve have been substantially curtailed through public cooperation with the "carry it in, carry it out" campaign for litter removal. Use levels in the BRW and WMPA are relatively low, and waste disposal problems are limited and localized. However, the Department should monitor areas of concentrated use and take actions to address problems as they arise.

The Department installs pit privies at locations where use levels are observed or expected to be high enough that the practice of burying waste in dispersed, individually selected locations would not succeed in protecting the environment. A standard privy is a totally enclosed wood structure with a roof and a door. A wilderness privy is a wood box without sides, a roof or a door. At locations below an elevation of approximately 3,500 feet, above which cool, wet and shallow soils inhibit decomposition, pit privies can be effective in minimizing health risks and water contamination if they are properly located and maintained. The APSLMP requires that all pit privies be located a minimum distance of 150 feet from water (APSLMP, 2001, page 21).

In the BRW, there is a privy at each of the three lean-tos, along with two in unusable condition at the summit of Wakely Mountain. Additional privies should be installed where relatively high use can be expected to result from new trail proposals or at other locations where disposal problems have been observed. To minimize visual impacts, accessible wilderness privies will be installed at all privy locations within the BRW and WMPA, except at locations where natural screening is not adequate to afford sufficient privacy for users.

Objective

- Minimize the adverse effects of the improper disposal of refuse and human waste on the wilderness environment.

Actions

- Educate visitors about the principles of the *Leave No Trace* program, stressing the need for proper disposal of refuse and human waste and for the proper treatment of drinking water.
- Prohibit by regulation the use of glass containers, any soap or detergent, or the disposal of food scraps in any waters.
- Designate tent sites in locations conducive to proper human waste disposal, such as locations where soils are deep and well-drained.
- Install privies at suitable locations where public use monitoring indicates that they are needed.

- Install accessible wilderness privies at all privy locations within the BRW and WMPA except at locations where natural screening is not adequate to afford sufficient privacy for users.
- Replace the privy near the observer's cabin at the summit of Wakely Mountain with a new one at a location screened from the summit clearing. Remove the privy near the fire tower.
- Install an accessible privy near the South Inlet waterway access site on the south side of Route 28. Locate the privy where it will not be visible from the highway.
- Install an accessible privy near the end of the trail to Death Brook Falls.

CAMPFIRES

Present Conditions and Assumptions

From the time when Europeans first penetrated the Adirondack wilderness to the present day, campfires have been a central part of the camping experience. While increasing numbers of wilderness visitors now carry portable stoves and no longer need campfires for cooking, the campfire remains an important social focus.

At every established tent site and lean-to in the BRW and WMPA there is evidence of the use of fire, including fire rings with blackened rocks, charcoal, hacked trees, partially burned garbage and melted glass. Occasionally fires are built in parking lots, in the middle of trails, inside lean-tos and along the shorelines of lakes and ponds. However, in proportion with the relatively low levels of public use, the ecological and visual impacts of fire within the BRW and WMPA have been relatively minor.

According to 6 NYCRR §190.1(a), which applies to most State lands managed by the Department, including the BRW and WMPA, "No fires are permitted except for cooking, warmth or smudge. No fire shall be lit until all flammable material has been removed from its perimeter as is necessary to prevent its spread. No fires shall be left unattended until extinguished." 6NYCRR §190.1 (c) provides, "No wood, except from dead and down trees or from supplies furnished by the department, shall be used for fuel." There is no regulation prohibiting campfires from any location within the BRW and WMPA.

The direct physical impacts of campfires usually are limited to the relatively small areas inside fire rings. However, the activity of gathering firewood can greatly increase the area of disturbance around tent sites and lean-tos. Areas disturbed by firewood gathering can be 10 to 20 times larger than the devegetated zones at tent sites. Campfires consume wood which otherwise would serve as habitat for a variety of organisms until it decomposed, replenishing soil nutrients. Once all available dead and down wood near popular tent sites is consumed, visitors sometimes resort to the cutting of live and standing dead trees, or snags, which are important habitats for many mammals, cavity-nesting birds and insects. They break limbs off standing trees, adding to the visual impacts of firewood gathering activity. Unburned refuse left in fire rings attracts wildlife in search of food and leads to increased contact between people and wildlife, notably bears.

The most significant disturbance that may result from the building of campfires is wildfire. Campfires left unextinguished occasionally spread beneath the ground surface through undecomposed organic matter, or duff, and can ignite surface fuels. An example is a site on the southeast shore of Sprague Pond. To reduce the incidence of wildfires, as well as the impacts of fuel gathering, Department staff routinely advocate the use of portable gas stoves. The Department occasionally has exercised its legal authority to ban campfires during periods of extreme fire danger. APSLMP wilderness guidelines permit the installation of a cement slab beneath a fire ring situated in a fire-sensitive location. At campsites with deep duff layers, the risk of fire can be reduced by digging out the organic material, filling with mineral soil, and ringing the area with local rocks. However, because the area of mineral soil can be covered by leaves and the rocks can be moved, fire rings constructed in this way may not be as easily maintained as concrete slabs whose surfaces are slightly higher than ground level and therefore remain visible. No fire rings with concrete slabs have been constructed in the BRW or WMPA. There are fireplaces at the Cascade Pond and Wilson Pond lean-tos. Because the installation of fireplaces does not comply with APSLMP wilderness guidelines, the fireplaces should be replaced with fire rings.

Objective

- Minimize the visual and ecological effects of the use of campfires in the BRW and WMPA.

Actions

- Educate visitors to the BRW and WMPA about the principles of the *Leave No Trace* program that pertain to the use of fire. In outreach efforts, stress proper fire use in appropriate locations, encourage greater use of portable gas stoves, and explain the rationale for avoiding the use of campfires.
- Monitor trailheads, trails, lean-tos, tent sites and the shorelines of ponds, lakes and streams and document levels of ecological and visual impacts where campfire use is evident. Take measures targeted to reduce impacts in areas where the levels of impact have approached the limits of acceptable change.
- At all designated tent sites and lean-tos, create fire rings in suitable locations by digging out the duff layer, filling with mineral soil and placing large rocks firmly set into the soil. In areas with deep duff layers where monitoring shows this method not to be effective, construct fire rings with concrete slabs.
- Promulgate a regulation prohibiting campfires within 150 feet of roads, trails, and the shores of lakes, ponds, rivers, streams and wetlands, except at lean-tos or designated tent sites.

CULTURAL RESOURCES - SAGAMORE RUINS

Introduction

The sites of a number of structural ruins and the system of carriage roads that were part of the original estate of Camp Sagamore now are within the BRW (Table 8). Little remains of most of the ruins but foundations. However, because of their substantial construction, the valvehouse and powerhouse of the former hydroelectric system are largely intact. Most of the dam on South Inlet also is in place, though it is breached. The hydroelectric ruins are nonconforming uses in wilderness. As components of the original Sagamore estate, they are included in Sagamore's designation as a National Historic Landmark, as well as its listing on the National and State Registers of Historic Places. They are considered vital to the educational mission of Sagamore Institute. Various State laws direct State agencies to protect historic and archaeological sites and structures. In coming to a decision about the disposition of the Sagamore ruins, the Department analyzed a number of alternatives.

Background

William West Durant constructed Camp Sagamore in 1895-1897. Durant sold the camp and its 1,526-acre estate to Alfred Vanderbilt in 1901. Vanderbilt greatly expanded the camp complex and, in 1915, constructed a self-contained hydroelectric system for Sagamore. The Sagamore hydroelectric complex consisted of a concrete dam on South Inlet, located approximately one-quarter mile downstream from Sagamore Road; a stone-lined raceway leading to a 9-foot by 12-foot valvehouse, which controlled the flow of water to the powerhouse; a wood penstock used as a water conduit between the valvehouse and the powerhouse; a 26-foot by 33-foot powerhouse, or generator plant, approximately 1,100 feet downstream from the dam; and transmission lines from the powerhouse to the former transformer house on the Sagamore campus.

In 1975 the State of New York acquired all the original 1,526-acre Sagamore estate except the eight acres encompassing the main camp complex, which was purchased by Sagamore Institute. Eleven service buildings and the ruins of a number of other structures that once were part of Sagamore, including the dam on South Inlet, the valvehouse, powerhouse and connecting raceways and penstock, became part of the Forest Preserve. Through an amendment to Article XIV of the New York State Constitution adopted in 1983, 10 acres including the service buildings was transferred from Forest Preserve to Sagamore Institute. The ruins of the other structures and the system of carriage roads that linked the camp with the surrounding lands of the estate remained in the Forest Preserve.

On May 16, 2000, all the original 1,526-acre estate was included in the designation of Great Camp Sagamore as a National Historic Landmark. The designation encompasses the main camp complex owned by Sagamore Institute as well as the part of the estate now within the Forest Preserve, including the ruins of the outlying buildings. Of these most have been reduced to conditions that vary from barely discernible modifications of

the natural ground surface to foundations. The most substantial are the components of the former hydroelectric system.

The concrete dam on South Inlet has been breached, and the depth of water impounded by it is minimal. It does not elevate the water level enough to permit surface water flows into the valvehouse. The dam has stabilized in a position not likely to give way and allow a sudden increase in downstream flow. The small valvehouse is made of brick and reinforced concrete and appears very sound and stable. The door has been removed and the valve hardware is visible and intact inside a deep shaft below ground level. There is no floor next to the doorway, and the vertical drop poses a safety hazard for potential visitors, though no accidents have been reported. The powerhouse also is made of brick and reinforced concrete and appears to be structurally unaltered. It also appears very sound and stable. The two turbines inside appear to be intact, but the two generators and control panel have been vandalized and their parts are strewn across the floor. The windows of the powerhouse are broken, and trees, ferns and herbs are established in forest detritus on the concrete roof. The steel shutters that cover the windows are operable, as are the steel entry doors. The wood penstock originally running from the valvehouse to the powerhouse has almost entirely rotted away, leaving only the hundreds of steel hoops that held the penstock together in a trench that it once occupied. Subsurface water flow appears to be established below this trench and a small amount of water flows through the turbines and along the raceway from the outlet of the powerhouse to the river. The turbine seals have failed and a constant trickle of water runs across the floor of the powerhouse. The power line leading to the Sagamore campus is not visible, but may be buried in the forest floor. Insulators may remain on the standing and fallen trees on which the line was hung.

The dam and valvehouse are located approximately one-quarter mile from Sagamore Road. The powerhouse is about one-half mile from the road. The structures are not visible from any distant vantage point. From the river, the dam and valvehouse are visible, but the powerhouse is fairly well screened by vegetation. Vegetation screens all the ruins from the nearby Powerhouse trail. The trail, a former Sagamore carriage road, is lightly used, mostly by guests of Sagamore and tour groups led by Sagamore's interpretive staff.

The mission of the not-for-profit Sagamore Institute is largely focused on interpreting Sagamore in the context of surrounding Forest Preserve lands. Because much of the original Sagamore estate now lies within the BRW, many of Sagamore's interpretive activities include visits to sites within the BRW. According to Michael Wilson, Associate Director of Sagamore Institute, the interpretation of history at Sagamore is shaped by an essentially ecological mission on behalf of "nature, people, and their critical interdependence." Sagamore's architecture and social history are presented in relation to their wilderness setting.

The larger design of Sagamore's interpretation focuses on the changing relations between culture and nature, asking guests to consider issues of sustainability in light of historical change. Based upon geological, botanical, wildlife, and photographic surveys of the

Sagamore Lake and farm meadow trails, Sagamore's interpretation of ecological history treats natural succession and human intervention as intertwined episodes. This approach, according to Wilson, is intended to explain interdependence and to demonstrate the meaning of the qualifying language in the APSLMP, showing how a designated wilderness "*appears* to have been affected primarily by the forces of nature, with the imprint of man's work *substantially* unnoticeable." According to Sagamore staff, the reactions of their guests have taught them that the decaying ruins of Sagamore's historic structures are powerful object lessons in this interpretation. Contradicting the illusion of an ahistorical, enduring nature that stands in independent opposition to human culture, ruins incorporate biological resilience within historical process, enabling people to reconsider the human role in natural processes with skepticism and humility. As opposed to interpretive signage, ruins can invoke the recognition that biological cycles operate on larger scales and over far longer chronologies than our market economy can accommodate, and that sustainable living turns upon reconciling the differences.

Management Guidelines

Future management of the BRW must conform with all applicable laws, regulations and policies. This section will summarize the parts of the APSLMP, the Environmental Conservation Law, the Parks, Recreation and Historic Preservation Law and appurtenant regulations, and the Education Law that apply to the treatment of historic resources within wilderness areas in the Adirondack Forest Preserve.

The APSLMP provides a number of pertinent guidelines. On page 10 of the printed version of the 2001 update, in the section, "Unit Management Plan Development," the APSLMP provides that unit management plans will set forth objectives to address such issues as:

> ". . . the preservation and management of special interest areas such as . . . historic areas or structures."

On page 18, a non-conforming use is defined as:

> "A structure, improvement or human use or activity existing, constructed or conducted on or in relation to land within a given classification that does not comply with the guidelines for such classification specified in the master plan."

On page 20, wilderness is defined:

> "A wilderness area, in contrast with those areas where man and his own works dominate the landscape, is an area where the earth and its community of life are untrammeled by man--where man himself is a visitor who does not remain. A wilderness area is further defined to mean an area of state land or water having a primeval character, without significant improvement or permanent human habitation, which is

> protected and managed so as to preserve, enhance and restore, where necessary, its natural conditions, and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least ten thousand acres of contiguous land and water or is of sufficient size and character as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological or other features of scientific, educational, scenic or historical value."

Basic guidelines for wilderness include the following:

> "No additions or expansions of non-conforming uses will be permitted;
>
> Any remaining non-conforming uses that were not removed by the December 31, 1975 deadline provided for in the original version of the master plan will be removed by march 31, 1987;
>
> Non-conforming uses resulting from newly-classified wilderness areas will be removed as rapidly as possible and in any case by the end of the third year following classification."

On page 21, included in the list of structures and improvements that "will be considered as conforming to wilderness standards and their maintenance, rehabilitation and construction permitted:"

> "Existing dams on established impoundments, except that, in the reconstruction or rehabilitation of such dams, natural materials will be used wherever possible and no new dams will be constructed."

On page 23, in the section, "Motor vehicles, motorized equipment and aircraft," the APSLMP provides:

> "2. Administrative personnel will not use motor vehicles, motorized equipment or aircraft for day-to-day administration, maintenance or research.
>
> 3. Use of motorized equipment or aircraft, but not motor vehicles, by administrative personnel may be permitted for a specific major administrative, maintenance, rehabilitation, or construction project if that project involves conforming structures or improvements, or the removal on non-conforming structures or improvements, upon the written approval of the Commissioner of Environmental Conservation."

On page 50, the APSLMP sets forth special management guidelines and gives examples of parcels of land that may require special management to reflect unusual resource or public use factors, including:

> ". . . historic buildings, structures or sites not part of a designated historic area . . ."

The Environmental Conservation Law sets forth the authority and responsibilities of the Department for the management of Forest Preserve lands. §3-0301 and §9-0105 prescribe the general powers and duties of the Department. Article 41 sets forth certain powers and duties of the Department within the Adirondack and Catskill Parks. Department authority specifically related to historic structures and improvements is provided in §9-0109 4.

§9-0109 4 of the ECL provides that,

> "Historic structures and improvements which are located within the Adirondack and Catskill parks and owned by the state prior to the effective date of this section [June 21, 1983] and which existed prior to acquisition by the state may be maintained provided that:
>
> a. The commissioner of parks, recreation and historic preservation finds that such structures and improvements are listed or are eligible to be listed on the state register of historic places pursuant to subdivision one of section 14.07 of the parks, recreation and historic preservation law; and
>
> b. The commissioner finds that such structures and improvements can be maintained for public enjoyment and understanding of the forest preserve or for departmental activities necessary in protecting forest preserve lands in the parks in a manner that will not disturb the existing degree of wild forest character of land on which the pre-existing structures or improvements are located or the wild forest character of land adjacent thereto; and
>
> c. Such maintenance is in accordance with reasonable regulation of the forest preserve in the Adirondack and Catskill parks consistent with article fourteen of the state constitution.
>
> The recording provisions of section sixty-three of the public buildings law shall apply if such structures and improvements are not maintained or are substantially altered or demolished."

Article 14 of the Parks, Recreation and Historic Preservation Law sets forth the responsibilities of State agencies with regard to historic preservation.

§14.01 provides, in part:

> "The legislature determines that the historical, archeological, architectural and cultural heritage of the state is among the most important environmental assets of the state and that it should be preserved."

§14.05 provides, in part:

> "1. The commissioner [of OPRHP] shall continue and advance a statewide historic preservation program which shall include:
>
> > (a) Surveying and inventorying historic places and properties for nomination to the national register and state register of historic places; and
> > (b) Continuing planning activities to foster the preservation and management of historic properties as living parts of our communities and the effective representation of historic preservation in state environmental planning activities . . ."

§14.07 sets forth the law pertaining to the State register of historic places, inventory of historic property, and a statewide comprehensive historic preservation plan.

§14.09 sets forth the requirements of State agencies with regard to activities affecting historic or cultural property.

Code of Federal Regulations Title 36, Chapter I, §60.1 (b) provides that properties designated as National Historic Landmarks automatically are listed on the National Register of Historic Places.

9NYCRR §427.1 provides that,

> "All historic places within the State listed on or nominated by the commissioner for inclusion on the National Register shall be listed on the State Register."

§233.4 of the Education Law provides, in part, that

> ". . . no person shall appropriate, excavate, injure or destroy any object of archaeological and paleontological interest, situated on or under lands owned by the state of New York, without the written permission of the commissioner of education."

§233.5 authorizes State agencies to issue permits "for the examination, excavation or gathering of archaeological and paleontological objects upon the lands under their respective jurisdictions . . . to persons authorized by the commissioner of education . . ."

Alternatives

The planning team analyzed several alternatives by weighing their advantages and disadvantages with regard to legal, cultural, educational, environmental and financial considerations. The analysis of alternatives is presented in Appendix 15.

Objectives

- Retain the Sagamore ruins, subject to the free operation of the forces of nature, as important cultural resources for their value in interpreting the historical context of the creation and evolution of the Forest Preserve. Leave the valvehouse and powerhouse open for public viewing.
- Minimize public use impacts to the Sagamore ruins.
- Protect the public from undue safety hazards posed by the existence of the Sagamore ruins in an unmaintained condition.

Actions

- Consult with OPRHP before taking any action that could affect historic resources within the BRW and WMPA.
- Secure the valvehouse by installing a wood wall approximately four feet high in the bottom of the doorway.
- Secure the doors and window shutters in a fully-open position to maintain safe access and permit natural light to enter the powerhouse.
- Rearrange and secure the unattached pieces of hardware lying on the floor inside the powerhouse to the minimum extent necessary to protect the public from an undue risk of injury.
- Inspect the steel hoops remaining from the penstock and take the minimum action necessary to protect the public from an undue risk of injury.
- Assess the safety issues of all other ruins and take the minimum action necessary to protect the public from an undue risk of injury. Consult with APA before taking action.
- Encourage methods of interpretation that do not involve the installation of signs or displays in or near the sites of the Sagamore ruins.

PUBLIC USE

Present Conditions and Assumptions

The Adirondack wilderness system consists of an array of management units which vary widely in their levels of public recreational use. Areas such as the High Peaks Wilderness, with its concentration of alpine summits, and the Pharaoh Lake Wilderness, where an extensive trail system connects numerous brook trout ponds, attract relatively large numbers of visitors. Other areas, such as the BRW, because they lack spectacular scenery or extensive trail development, remain relatively unknown to the general public. The range of public use levels generally reflects differences among wilderness areas in

the characteristics that attract public use. Though managers are charged with the responsibility of minimizing the impacts of use and affording outstanding opportunities for the recreational experience of solitude or a primitive and unconfined type of recreation in all wilderness areas, they do not rigidly apply a single standard of solitude across the board. The degree of solitude chosen as a management objective for a particular wilderness area or a specific zone within the area should reflect its characteristics and historic use patterns while remaining within the bounds of wilderness management guidelines. In general, wilderness areas where visitors may experience a relatively high degree of solitude should be managed to retain current conditions, rather than to allow use levels to increase until the degree of available solitude approaches the limits of acceptability.

The levels of public use in the BRW and WMPA are relatively low. Except for a few destinations near the periphery of the unit, the degree of solitude experienced by most of the those who hike, camp, hunt and fish within the unit throughout the year is high. In zone 1, the area within 500 feet of marked trails and their destinations, public use impacts on natural resources are relatively low, and the availability of opportunities for solitude is relatively high. In zone 2, comprising all areas outside zone 1, public use impacts on natural resources are very low, and the availability of solitude is very high. A major goal of the management of the unit should be to maintain the relatively low levels of use impacts on natural resource and the high degree of solitude available to visitors, in accordance with the objectives established for zones 1 and 2.

The goals of maintaining naturalness and solitude should not be defined as the complete absence of impacts to natural resources and encounters with other people. Public use causes observable effects on vegetation and soils, even at very low levels. Some level of natural resource impact must be accepted if the goal of providing opportunities for wilderness recreation is to be realized. Also, if solitude in a wilderness setting is to have value, it must be available to be experienced. The experience of solitude is not necessarily dependent on a total absence of encounters with other people.

In devising management strategies, it is tempting to consider measures to popularize lesser-used wilderness areas in an effort to divert use from more heavily-used areas. However, it is possible that such an effort would have the effect of increasing use and reducing the quality of the recreational environment in areas presently not sustaining high use while having little effect in reducing visitor numbers in high use areas. Therefore, public information efforts should be carefully crafted to promote the management objectives for individual wilderness areas rather than simply to promote recreational use in lesser-used areas.

Though group size is not yet a major issue in the BRW and WMPA, it is a major issue in many other wilderness areas. Many visitors consider large groups inappropriate and undesirable in wilderness. When, by their sheer size, large groups displace small groups, they degrade the recreational experience of those who are displaced. Aside from behavioral factors, the potential for a group to cause impacts varies with group size and the type of activity being pursued. Groups larger than eight people have been

documented to cause greater impacts to certain environmental and sociological resources than smaller groups (Cole, 1987, 1989, Hendee, 1990, and USDA Forest Service, 1994). Although use levels within the unit generally are low and large group use represents a small proportion of total users, large groups are acknowledged to cause a disproportionately large amount of impact when compared to smaller parties.

Regardless of activity or whether engaged in day use or extended overnight stays, large groups in wilderness areas commonly create congestion problems at trailheads, on trails, at rock and ice climbing sites and on mountain summits. They are associated with higher noise levels. It is very difficult to control and confine large groups in vulnerable locations, such as mountain summits or riparian areas. Often large groups from one organization asked to split into several smaller groups will rejoin at interior locations. The rate of unacceptable change to a particular resource can be accelerated by the occupancy of a site by large groups over short periods of time.

Large camping groups require greater tent site space and often clear areas to accommodate additional tents, store equipment, or make room to eat and congregate. Because large groups cooking with wood fires generally consume greater amounts of firewood, they extend firewood gathering areas. The areas of large-group impacts tend to be larger than the areas affected by smaller groups, extending well beyond tent site boundaries. Department regional practice currently limits camping group size in wilderness areas to 12 people. Forest rangers issue the permits and are given the authority to lower this ceiling depending on tent site suitability, time of desired use and location. Though few groups large enough to require camping permits enter the BRW, the limit of 12 has been maintained in the unit. The numbers of large groups may increase as regulations restricting group size in other Adirondack wilderness areas are implemented.

Many wilderness managers agree with Cole (1996) that greater attention should be given to the management of day users and the problems they create. There are no restrictions limiting day use within the BRW and WMPA. Day use groups exceeding 20 people are rare in the unit. However, as with camping groups, the numbers of large day-use groups may increase with the implementation of group size restrictions in other units.

An action that would be effective in reducing the impacts of large groups in wilderness would be to direct them to wild forest or intensive use areas, or to private lands. The simplest and most effective way to address the impacts of large groups is to limit group size. Selecting a group size limit for a specific activity requires judgement; there is no formula for calculating a perfect number for every situation. Research indicates that the size of a group in wilderness should be low–ideally four to six, but definitely less than 10 to be effective in reducing environmental and sociological impacts (Cole, and others, 1987). Though the impacts of large groups in the BRW and WMPA are minimal at present, the adoption of consistent wilderness-wide group size regulations would preclude the transfer of large groups to this and other lesser-used units, as regulations periodically are adopted for other wilderness areas where the impacts caused by large group use have already exceeded acceptable limits.

Traveling in a large group is one type of activity considered inappropriate in wilderness. Other activities that do not require a wilderness setting include competitive events and military training. Though participants in these activities seek and benefit from a natural environment, they usually are not dependent on wilderness, which is managed primarily to preserve natural conditions and provide opportunities for recreation characterized by a high degree of solitude. Those who intend to engage in activities not considered wilderness-dependent should be directed to other areas.

The number of pets, particularly dogs, brought into the backcountry is increasing. In wilderness areas, dogs are encountered on trails, in tent sites, along shorelines and at summits. Some dogs are well controlled, others are not. The Department receives complaints of barking dogs, dog fights, dog bites to people and other dogs, threatening actions as dogs establish territories in and around tent sites, summit trampling by unleashed dogs, fecal contamination of water resources, conflicts with bears and harassment of deer and other wildlife. In general, the numbers of dogs in the BRW and WMPA reflect the relatively low public use levels within the unit.

In 1976, 6NYCRR section 59.1 was adopted, prohibiting hunting and trapping within a described area of approximately 100 acres around Camp Sagamore (see Appendix 11). The area was established partly to protect a small tame deer herd, but mostly as a safety zone around the camp complex with the purpose of supporting the viability of Sagamore as a self-sustaining historic preservation and educational enterprise. Deer feeding ceased long ago, so there is no longer a tame deer herd to protect. However, Camp Sagamore continues to attract visitors for tours and a diverse offering of educational and recreational programs. Therefore, the conditions that constituted the main purpose for the establishment of the safety zone remain in place.

Objectives

- Manage visitor use to keep impacts on natural resources, the experiences of visitors and adjacent lands at acceptable levels consistent with the wilderness guidelines of the APSLMP and desired conditions established for zones 1 and 2.
- Encourage both overnight and day users to keep groups small.
- Provide fair and equitable access to tent sites and lean-tos.
- Educate visitors about the need to be self-sufficient and take a high degree of responsibility for the environmentally-sound use of the unit and for their own health, safety and welfare.

Actions

- Adopt a regulation limiting the maximum number of people per tent site or lean-to site to eight as required by the APSLMP. Include in the regulation the requirement that, when larger groups split up to meet size limits, each subgroup be equipped as a self-sustaining group. The people in each division of a larger group must have the ability to treat their own water, cook their own food and carry all necessary clothing and gear to be self-sufficient. Each subgroup must

camp and travel at least one mile apart from other divisions of the group so as not to violate group size limits. Implement the regulation over a two year period.

Year One: Inform the public of the impending change through an information and education effort.

Year Two: Enforce the regulation.

- Adopt and enforce a regulation in year one limiting the maximum number of people per day use group to 15. Include in the regulation the requirement that, when larger groups split up to meet size limits, each subgroup be equipped as a self-sustaining group. Each division of a larger group must have the ability to treat their own water, cook their own food, and carry all necessary clothing and gear to be self-sufficient. Each subgroup must travel at least one mile apart from other divisions of the group so as not to violate group size limits. Day use groups must not congregate into larger groups on trails or at destination points.
- Disseminate information about group size limits through the unit's information and education and *Leave No Trace* programs. Implement measures to inform visitors about group size limits before they arrive.
- Through the unit's information and education and *Leave No Trace* programs, inform the public about the characteristics of the BRW and WMPA, management guidelines, trip planning and appropriate behavior.
- Refer groups requiring a larger group size for day and overnight activities to appropriate wild forest areas where a higher degree of recreational use can be sustained and is permitted by the APSLMP.
- Adopt a regulation requiring: (1) that no dog be left unattended at any time; and (2) that any pet be under the complete control of its owner or handler at all times.
- Adopt additional regulations designed to protect natural resources and the recreational experiences of visitors, including regulations pertaining to campfires, the use of audio devices, the disposal of food scraps, the use of motorized vehicles and equipment, the marking of unofficial trails, pets, commemorative markers, keeping food from bears, the use of glass containers, the erection of unauthorized structures, and the storage of boats and other personal property.
- Maintain the existing safety zone around Great Camp Sagamore. Clearly identify the boundary on the ground by posting signs and on maps mounted on Storey registers to be installed in the area.
- Develop a uniform method of collecting public use information for the unit.
- Develop LAC social indicators and standards for Zone 1 to address issues such as noncompliant behavior, conflicts between user groups and solitude.
- Contract with a researcher to conduct a visitor study to assess current social conditions and compare them with management objectives.

ACCESS

General Access

PRESENT CONDITIONS AND ASSUMPTIONS

In general, public access to the BRW and WMPA is excellent. A number of trails enter the unit from several points around its periphery. There are miles of frontage on public highways. During big game hunting season, hunters enter the unit from a number of points on Route 28, walking along former roads that are not marked and maintained as public trails. Though there is excellent access to the boundaries of the unit, use levels and use impacts generally have been relatively low. Access to the interior by marked trails is limited. The trailless character of the interior should be maintained to preserve its value as a natural plant and animal community and to provide a recreational environment characterized by a high degree of challenge and significant opportunities for solitude. The marking of some existing unmarked trails along the periphery of the unit would improve recreational access without significantly affecting the wild character of the unit's interior.

Public access along a forest road between Cedar River Road and lands of the BRW between Sugarloaf and Metcalf Mountains is provided through deeded easement across private lands. The easement makes no mention of the use of the lands encumbered by the easement for public parking. The access road will connect with the new route of the NP Trail. The Department should educate lessees and post and maintain appropriate signs and markers on the access road to inform the public that it is open to foot travel. The establishment of a small parking area should be investigated.

The deed to a private parcel surrounding Crystal Lake (Hamilton County liber 139, page 423) includes the provision that the land was granted "subject to a right-of-way 10 feet wide along the easterly boundary line of Prospect Point, Inc. extending in a southerly direction to lands of the State of New York, said right-of-way to be used as a foot trail only, for access to and from lands of the State of New York . . ." Research is needed to determine the status and location of the trail right-of-way.

The part of the NP Trail heading north across private lands from the former McCane's Resort on Cedar River Road provides access to Stephens Pond from the south. The present owner has closed the trail to all but through-hikers. Visitors will be able to reach Stephens Pond on the trail from the Lake Durant Campground or the Cascade Pond trail.

The road to private lands surrounding Lake Kora is the boundary between the BRW and the MRPWF for about a mile from the existing gate. It is not clear to the public that public foot travel is permitted along the road between the gate and the private land boundary. Measures to inform the public about appropriate access will be proposed in the MRPWF UMP.

South Inlet is an avenue of motorboat access to the Cascades, also known as South Inlet Falls. The falls is a popular destination for people who travel in motorboats and jet skis from Raquette Lake, as well as those paddling in canoes and kayaks both from Raquette Lake and the waterway access site on Route 28. There is no regulation prohibiting motorboat use on South Inlet. The boundary between the BRW and MRPWF where it

crosses South Inlet is not visible on the ground. It is estimated to be from 500 to 1,000 feet downstream from the falls. Day use of the area surrounding the falls occasionally is significant, and Sagamore staff report occasionally removing litter left by boaters. However, impacts to soils and vegetation are not excessive, and those who arrive by boat seldom leave the immediate vicinity of the landing area and the Cascades.

Section 45-2 of the Navigation Law provides, "Except as provided in section forty-five-cc of this part, no vessel shall be operated within one hundred feet of the shore, a dock, pier, raft, float or an anchored or moored vessel at a speed exceeding five miles per hour, unless such vessel is being operated near such shore, dock, float, pier, raft, or anchored vessel for the purpose of enabling a person engaged in water skiing to take off or land." Most of the water surface of South Inlet is within 100 feet of shore. The MRPWF UMP proposes to publicize the applicability of this law by posting South Inlet as a "no wake" zone from the Route 28 bridge to the Cascades. Because motorboat use to the Cascades does not penetrate significantly beyond the wilderness boundary, and existing law limits boat speed and engine noise, the sights and sounds of motorboats will not have a significant impact on the wilderness environment outside the immediate area of the Cascades. It would be possible to prevent motorboats from passing the point where the wilderness boundary crosses the water through regulation and posting. However, the benefits to the wilderness environment do not appear sufficiently significant to justify an action to restrict motorboat access at a point not far from a traditional destination at the natural limit of navigability. The option of directing motorboats to suitable landing sites downstream of the wilderness boundary and constructing a trail to the falls was investigated. Reconnaissance revealed that extensive wetlands prevent both the establishment of a suitable landing site and the construction of a connecting trail.

OBJECTIVES

- Maintain and, where appropriate, improve present levels of legal access to the lands of the BRW and WMPA consistent with the general goals for the management of the BRW and WMPA.
- Provide information to the public about access through the posting and maintenance of appropriate signs and the dissemination of information through Department media.

ACTIONS

- Once the proposed system of trails and trailheads has been established, assure that trails and trailheads receive adequate maintenance.
- Install and maintain roadside signs indicating the locations of access points consistent with management goals and the objectives for each trailhead.
- Promote winter access by plowing parking areas. Seek assistance from State and local government agencies and volunteers.
- Clearly indicate the boundaries of the lands of the unit through the posting and maintenance of wilderness boundary signs.

- Give appropriate information about access at trailheads, in the informational brochure for the unit and on the Department website.
- Investigate the availability of public parking in connection with the access road that crosses private lands by deeded easement between Cedar River Road and the lands of the BRW between Sugarloaf and Metcalf Mountains.
- Determine the status and location of a foot trail easement across private lands east of Crystal Lake.
- Monitor the impacts of day use and camping along the shoreline of South Inlet, with special attention to the Cascades area.
- Monitor the effectiveness of posting South Inlet as a no-wake zone in limiting the impacts of excessive motorboat speed.

Access for People with Disabilities

PRESENT CONDITIONS AND ASSUMPTIONS:

Wilderness areas are managed to preserve their natural conditions, minimize human disturbance, and offer outstanding opportunities for solitude or a primitive and unconfined type of recreation. The need to protect the wild character of the BRW and WMPA and the difficulties presented by their generally rugged terrain set limits on the degree of physical modification that can be made to improve their accessibility. However, there are a number of measures that conform with the management guidelines for wilderness that managers can take.

Improving the accessibility of suitable trails might require limited modifications to trail surfacing or tread width, consistent with wilderness guidelines. Parking, bridge surfaces and approaches, privies and other parts of the built environment should be developed or improved where necessary to ensure accessibility. Informational access could be improved. Signs at selected trailheads could present information about trail surface type, length, average grade, average cross slope, maximum grade and slope, trail width, and hazards such as rocks, ruts, and roots that might be encountered on the trail. Information about a trail also could be provided in a simple pocket guide with a map showing the trail and the locations of obstacles. Providing information about trail characteristics would allow visitors to make informed decisions about their ability to use the trail.

To ensure that the Department's management efforts would effectively meet accessibility guidelines and recommendations while conforming with the legal and natural resource constraints that affect the management of wilderness areas, managers should involve experts in universal design and representatives of the community of people with disabilities in the design and implementation of actions intended to improve accessibility.

OBJECTIVE

- Comply with ADA and use existing and proposed ADAAG in assessing existing structures, improvements and programs and designing new ones.

- Increase access opportunities for people with disabilities where such development is economically feasible, does not alter the fundamental nature of existing programs, and is consistent with the APSLMP and other applicable laws, regulations and policies.

ACTIONS

- Assess the unit's trails with regard to their accessibility for people with disabilities. Use the information gathered to provide information to visitors. Prioritize the Cascades, Sagamore Lake, Death Brook Falls and Sprague Pond trails.
- At the trailhead to the Cascades trail, add one accessible parking space. Modify the boulder barrier to allow the passage of wheelchairs.
- At Sagamore Lake, provide one accessible parking space in the new parking area to serve the lake trail (MRPWF). Modify bridges on the trail to make them accessible. If feasible, increase accessibility for the hand launching of boats from the existing path on the north side of Sagamore Lake outlet. Provide an accessible tent site along the Sagamore Lake trail if feasible. Modify boulder barriers at both ends of the trail to permit wheelchair passage.
- At the Death Brook Falls trailhead, provide one accessible parking space. Where needed, make minor improvements to the trail surface with hand tools, such as minor grading to remove ruts, the removal of individual rocks or the targeted application of limited amounts of native fill material. Construct an accessible bridge across the wet area near the end of the trail. Modify the area near the pipe gate at the beginning of the trail to provide space for the passage of wheelchairs. Install an accessible privy near the end of the trail.
- At Sprague Pond, include one accessible parking space in the proposed new parking area. Modify the proposed boulder barrier to permit the passage of wheelchairs. Where needed, make minor improvements to the trail surface with hand tools, such as minor grading, the removal of roots and rocks, or the targeted application of limited amounts of native fill material. Investigate ways to increase the accessibility of the final 200 feet of trail to the edge of the pond by addressing obstacles, either through modification of the existing trail or relocation, in ways that would conform with APSLMP wilderness guidelines. Implement improvements if feasible. If feasible, increase accessibility for the hand launching of boats at the south shore of the pond. Provide an accessible tent site if feasible.
- Incorporate accessible signage and trail registers at trailheads.
- Identify other potential opportunities in the unit.

NONCONFORMING USES

Present Conditions and Assumptions

According to the APSLMP, a nonconforming use is "a structure, improvement or human use or activity existing, constructed or conducted on or in relation to land within a given classification that does not comply with the guidelines for such classification specified in

the master plan." The APSLMP further provides that all nonconforming uses must be removed, and no new nonconforming uses may be permitted. There are a number of nonconforming structures and improvements within the BRW and WMPA.

The Wakely Mountain fire tower, observer's cabin and helipad are within the WMPA. The primitive area was designated in recognition of the existence of the fire tower and associated structures. Should the fire tower no longer be needed, the APSLMP requires that the tower and associated structures be removed and the area reclassified to become part of the BRW.

The ruins of a number of structures once part of the original estate of Camp Sagamore now lie within the BRW. The most substantial of the structures are the dam, valvehouse and powerhouse of the former hydroelectric complex.

The Golden Beach Campground septic system, which is within the borders of the BRW, was constructed in 1966 and should have been included within the campground intensive use area. In 2004 it was discovered that the septic system required rehabilitation. Depending upon the results of an engineering analysis and the availability of funding, either the existing system will be upgraded or a new system constructed in a new location.

Various structures near the intersection of the roads to Camp Uncas and Kamp Kill Kare are not listed in the APSLMP as conforming in wilderness, including a telephone relay and amplifier box serving the three camps, a wood fence to screen the box from the road, a small rustic wood cabin on the east side of Mohegan Lake Road which houses an electrical junction facility serving Uncas and Kill Kare, a keypad for operating the Kamp Kill Kare gate, a small structure which houses a battery backup for the gate and a delivery drop box. Some of these structures are within the BRW, and some in the MRPWF. Though nonconforming, these structures may remain if the landowners have legal rights to maintain them.

Objective

- Remove all nonconforming uses from the BRW and WMPA as soon as possible, consistent with all applicable laws, regulations and policies.

Actions

- **Wakely Mountain Fire Tower Structures (See alternative analysis, Appendix 16):** Restore the fire tower, install a radio repeater in the cab of the tower and leave the tower open to public access. Retain the observer cabin. Reconstruct the helipad to maintain helicopter access to the summit for the maintenance of the tower and the radio repeater. In order for helicopters to use the helipad, remove trees (mostly balsam fir and red spruce two to six inches diameter at breast height) within a 50-foot radius of the center of the helipad (0.18 acres).

- **Sagamore Ruins (see alternative analysis, Appendix 15):** Allow the ruins of the structures and improvements within the bounds of the former Sagamore estate to remain, subject to the forces of nature. Take the minimum action needed to remove public safety hazards and leave the valvehouse and powerhouse open for public viewing.
- **Gould Road Spurs:** Install boulder barriers across the three dead-end roads branching off the boundary road near Wakely Pond known as the Gould road to prevent motor vehicle use. Post signs indicating the wilderness boundary and prohibiting motor vehicle and bicycle use. One spur road is proposed to become part of the relocated Northville-Lake Placid trail. The other spurs will be available for general foot access to the wilderness, but will not be marked or maintained.
- **Golden Beach Campground Septic System:** Depending on the results of an engineering analysis, decide either to rehabilitate the existing system in its present location or construct a new system outside the BRW. If the system will be rehabilitated in place, seek to reclassify the area to become part of the campground intensive use area. If the system will be moved, restore the site of the existing system by removing all above-ground septic system components and planting a mixture of native tree seedlings. Remove the gate, and move the interior boulder barrier to the beginning of the access road.
- **Sprague Pond pipe gate:** Replace the pipe gate with a boulder barrier.
- **East Inlet bridge:** When the bridge over East Inlet near Sagamore Lake requires reconstruction, replace it with a new bridge conforming with APSLMP guidelines.
- **Private Structures:** Determine the legal status of the structures near the intersection of the roads to Camp Uncas and Kamp Kill Kare. Work with the landowners to remove nonconforming structures that may not legally be maintained.

WAKELY MOUNTAIN FIRE TOWER

Introduction

The Wakely Mountain fire tower and an observer cabin were constructed on the summit of Wakely Mountain in the early twentieth century for the purpose of detecting forest fires. A small wood helipad was constructed in the late 1960s. The WMPA was designated when the APSLMP was adopted in 1972. At that time the lands immediately south of the summit of the mountain, now part of the MRPWF, were privately owned. In more recent years the Department transferred its fire detection efforts from fire towers to contract surveillance flights. 1988 was the last year a fire observer was stationed at Wakely Mountain. The APSLMP provides that, “Once the fire tower on Wakely Mountain is no longer needed, this area should be made part of the Blue Ridge Wilderness.” To determine whether all or some of the structures at the summit of Wakely Mountain are needed, the Department analyzed a number of alternatives.

Background

The staffing of fire observatories in New York State began in 1885 on Balsam Lake Mountain, where a wooden tower was maintained by the Balsam Lake Club from 1885 to 1908. In 1909 the State began operating fire observatories, took over the Balsam tower, and created eight new stations: Belleayre, Gore, Hunter, Hamilton, Mt. Morris, Snowy, West (Raquette Lk.) and Whiteface.

At 69.5 feet from the cab floor to the ground, the Wakely Mountain fire tower is the third tallest fire tower now standing in the Adirondack Park and the fourth tallest ever built in the Park. The original Wakely tower was constructed of wood in 1911 but replaced by one of ten "light construction" towers purchased in 1916 from the AerMotor Company of Chicago. These ten towers came with only a ladder running up one side to gain access to the tower cab. This is unlike other towers purchased in 1917 and later that have original factory stairs installed. Between 1918 and 1928 the State experimented with wooden stairways for the original ten towers which did not hold up well and needed frequent repairs or replacement. In 1927 AerMotor designed a steel stairway system to be installed inside the four legs of a tower using a four-leg structure that was erected and secured to the uppermost platform of the tower. From 1928 to 1932 each of the original ten towers was equipped with this new stairway, including Wakely in 1930. When the permanent stairs were installed at each tower, the lower quarter of the ladder was removed to discourage use and, over time, most of the ladders were removed. Of the original ten AerMotor towers, Wakely was the tallest. Only four remain standing today: Cathead, Hadley, Wakely and Woodhull. Of these four towers only two, Hadley and Wakely, have not be structurally altered in any way and only Wakely has three quarters of the original ladder still attached to the tower.

The State of New York acquired the lands including the Wakely Mountain summit when they were given to the State by Finch, Pruyn and Company in 1959. The land immediately west, south and east of the WMPA was owned by International Paper Company when the APSLMP classified the BRW and WMPA in 1972. The 235-acre WMPA, situated on the southern edge of the BRW, was designated in the 1972 APSLMP because the Wakely Mountain summit contained structures that did not conform with wilderness guidelines: the fire tower, a cabin for the fire observer, a corridor from Cedar River Road for a telephone line, and a helipad.

Though the structures on the Wakely Mountain summit have not been staffed or maintained since 1988, the tower structure appears sound, with little evidence of rust, though it is in need of paint. Guy wires are sagging. The tower's seven-foot by seven-foot cab is sound with a sound roof. The wood window frames are intact but weathered, and almost all the glass is missing. The treads of the tower's steps are made of wood and show some evidence of decay. The railing along the staircase is in good condition, but wire fencing has not been added. Some of the concrete around the tower's footings is spalling.

The wooden observer cabin, constructed with a concrete block foundation, rough-sawn siding, knotty pine paneling and oak flooring, is generally sound with a good roof and windows. Available evidence indicates that the present cabin was constructed in 1972 or 1973 (Gary Lee, personal communication). Several articles of furniture are inside. The windows are boarded up, but the front door stands open. Outside the building, propane tanks remain. A picnic table and pit privy are located nearby. A second privy is near the tower. The present cabin replaced a cabin constructed about 1920 that stood in the clearing between the present cabin and the tower. The first cabin was built for the original observation platform erected in 1911.

The helipad, some distance from the tower and accessible by a short spur trail, is made of wooden decking and uses unmilled logs as joists, posts, sills, and braces. It is only visible from the fire tower or from the air. The entire structure has weathered and shows evidence of significant decay. A dense growth of small balsam fir and red spruce trees surrounds the deck, leaving a clear space only about 30 feet in diameter. A clearing at least 100 feet in diameter is preferred for safe helicopter landing. The telephone line to the tower appears to have been removed, but the corridor is still visible.

The MRPWF is located to the south of the BRW and WMPA and is heavily used year-round for many activities such as car camping, hunting, canoeing, kayaking, backpacking, mountain biking, horseback riding and snowmobiling. This heavy use requires the attention of the Department's administrative, maintenance, and law enforcement personnel on a regular basis. Radio coverage in the MRPWF and BRW is inadequate with little or no reception in some areas, especially along the Moose River Plains Road, compromising personnel effectiveness and public safety. The Wakely Mountain fire tower is suited for the location and installation of a two-way radio repeater that would provide radio coverage to the MRPWF and BRW. The Department received an FCC license to operate a repeater on Wakely Mountain several years ago in response to a demonstrated communications need, but the repeater was not installed because of budget shortfalls and staffing changes at the time.

Department radio communications and law enforcement personnel tested the effectiveness of the Wakely Mountain fire tower as a radio repeater platform by stationing a radio operator in the tower with a portable radio and communicating with a forest ranger as he moved through the MRPWF and BRW. The temporary portable repeater provided coverage everywhere the ranger traveled except along a half mile stretch of the Moose River Plains Road a few miles west of the Cedar River gate. Simulated radio coverage using CommStudy software from RadioSoft is shown in Figure 15. This simulation shows how large holes in radio coverage in the MRPWF and the BRW are eliminated when a radio repeater is placed on the Wakely Mountain fire tower. The simulation indicates that the repeater would fill in some gaps in radio coverage on the southeast side of the Blue Ridge, the west side of Buell and Panther Mountains, the Wakely Pond and Payne Brook drainages, and the area between the West Branch of the Moose River from the Sumner Stream junction to Little Moose Lake, including the Limekiln Lake-Cedar River Road.

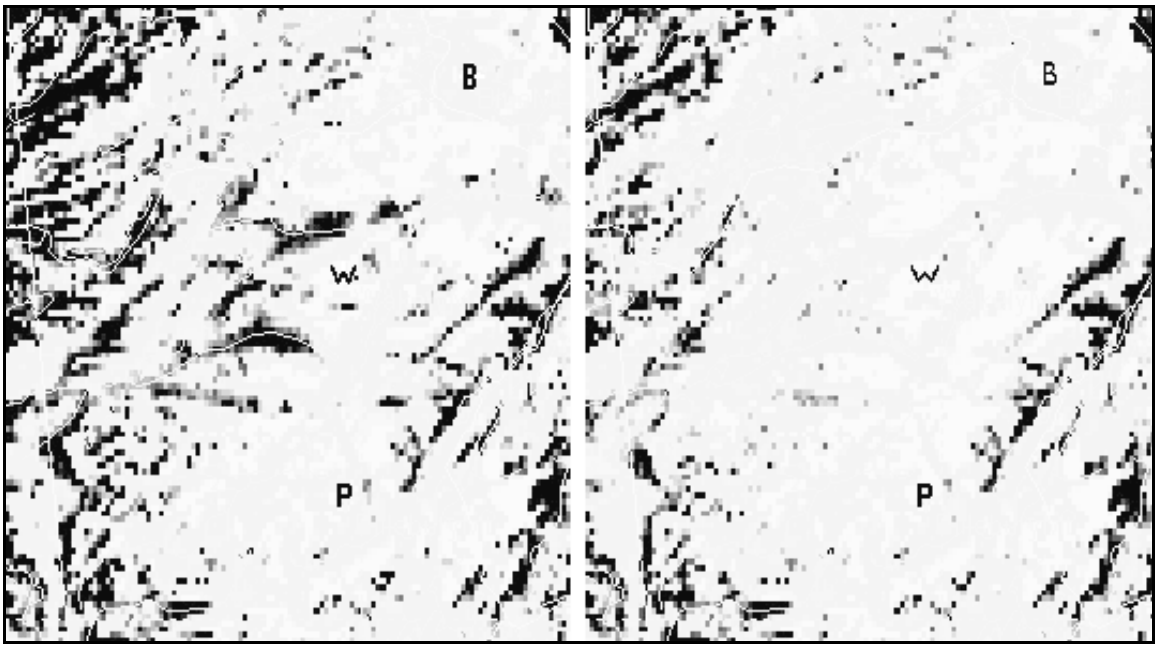

Figure 15. Simulated Radio Coverage Without a Repeater on Wakely Mountain (left) and With a Radio Repeater on Wakely Mountain (right)[1]. B is Blue Mountain fire tower, W is Wakely Mountain fire tower, P is Pillsbury Mountain fire tower.

[1]The distance from Wakely Mountain fire tower to Blue Mountain fire tower is 11.0 miles; from Wakely to Pillsbury is 10.7 miles, from Blue to Pillsbury is 21.0 miles. Simulation resolution three arc-seconds. Blue and Pillsbury towers have radio repeaters. Darker shades represent areas with little or no radio coverage. Other Adirondack repeaters, including Gore, Whiteface, Cathead, Colfax, Gomer Hill and Woodhull were not included in the simulation because they are not known to reach into the vicinity of the Moose River Plains Road. Some areas farthest from Wakely shown as having little or no coverage may be receiving coverage not represented here.

In August, 2003 the Wakely Mountain fire tower was listed on the New York State and National Registers of Historic Places. The tower is associated with a history of a fire-tower staffing culture, wildfire suppression, search and rescue operations and Forest Preserve public relations. Many people attach a sentimental value to the tower because of their memories of climbing the tower and meeting the fire observers. The tower is perceived as an icon of a receding past that some wish to share with current and future generations.

The lands to the south of the WMPA that were privately owned when the area was classified now are State-owned and part of the MRPWF. Had they been in State ownership in 1972, it is possible that the structures atop Wakely Mountain would have been incorporated into the adjacent wild forest unit, just as the Snowy Mountain and Pillsbury Mountain towers were included in the Jessup River Wild Forest. The trail to the Wakely summit begins at a parking area off Cedar River Road within the MRPWF about a quarter-mile before the Cedar River entrance to that unit at Wakely Dam. All but the last half-mile of the three-mile trail is within the MRPWF. Hence it is likely that many people associate the trail and the fire tower with the MRPWF rather than the BRW. The proposed new trail to the summit, which would ascend the mountain from the southwest,

also would begin off Limekiln Lake-Cedar River Road within the MRPWF and would lie mostly within the unit.

Though the Wakely Mountain fire tower has not been maintained since it was last staffed for fire observation, and the Department currently does not promote it for recreational use, the tower has not been closed to the public or modified to discourage its use as an observation platform. Therefore, it continues to be used by the public and is valued as a recreation destination with an open 360-degree view of the center of the Adirondack Park. The spruce-fir forest on the Wakely Mountain summit is tall and dense enough to obstruct almost all views, and without the tower the summit would have little potential as a scenic vista. Many of the public comments received since the beginning of the planning process have emphasized that the recreational value of the Wakely Mountain summit would be eliminated if the tower were removed. Some have advocated the reclassification of the part of the WMPA including the tower, observer cabin and helipad to include it in the MRPWF, with the rest going to the BRW. Within the MRPWF, it is assumed, the tower and cabin would no longer be nonconforming structures. However such an assumption may not be compatible with APSLMP wild forest guidelines.

With the passage of time, the status of Adirondack fire towers has evolved. Originally erected solely for the pragmatic purpose of forest fire detection, eventually fire towers became family hiking destinations and, as salient features of the landscape, emblems of Adirondack history. Support has grown for the retention of fire towers as recreational destinations and cultural resources. The Department has responded by selecting specific towers in wild forest areas for restoration and entering into stewardship agreements with volunteer organizations interested in assisting in restoration work and conducting educational and interpretive activities.

To formalize the developments in fire tower management, a number of wild forest UMPs will include proposals to retain and restore fire towers in recognition of their recreational, educational and historic preservation values. However these proposals, along with the proposal to reclassify the land on which the Wakely Mountain tower stands from primitive to wild forest, would have to be made in the context of the APSLMP. A key wild forest guideline provides: “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.” In recent years it has become clear that fire towers no longer are necessary as observation points for fire detection. Several towers, including Wakely, remain as essential components of a Park-wide radio communications network. But new developments in communications technology might render tower-based radio repeater stations obsolete. Therefore, the long-term retention of fire towers for purposes other than fire control and communications may require a revision to the APSLMP. To assure that, in the future, the management of State-owned fire towers within the Adirondack Park will be consistent with all applicable laws and policies and will be informed by public opinion, the Department should develop a comprehensive fire tower management plan.

Management Guidelines

Future management of the WMPA must conform with the guidelines of the APSLMP. Here are applicable guidelines from the 2001 update of the APSLMP.

On page 10 of the printed version of the 2001 update, in the section, "Unit Management Plan Development," the APSLMP provides that unit management plans will set forth objectives to address such issues as:

> ". . . the preservation and management of special interest areas such as . . . historic areas or structures."

On page 18, a non-conforming use is defined as:

> "A structure, improvement or human use or activity existing, constructed or conducted on or in relation to land within a given classification that does not comply with the guidelines for such classification specified in the master plan."

The definition of a primitive area is provided on page 26:

> "A primitive area is an area of land or water that is ether:
>
> 1. Essentially wilderness in character but, (a) contains structures, improvements, or uses that are inconsistent with wilderness, as defined, and whose removal, though a long term objective, cannot be provided for by a fixed deadline, and/or, (b) contains, or is contiguous to, private lands that are of a size and influence to prevent wilderness designation; or,
>
> 2. Of a size and character not meeting wilderness standards, but where the fragility of the resource or other factors require wilderness management."

Following the definition, the APSLMP provides:

> "The definition recognizes two basic types of primitive areas: (i) where the ultimate goal is clearly to upgrade the area to wilderness at some future time, however distant, when the non-conforming uses can be removed and/or acquisition of private tracts is accomplished, and, (ii) where eventual wilderness classification is impossible or extremely unlikely.
>
> An example of the first type would be the existence of a fire tower and associated structures and improvements (observer cabins, telephone lines, etc.) whose precise date of removal cannot be ascertained until the new aerial surveillance program of the Department of Environmental

> Conservation is fully implemented and communication systems modernized."

On page 27 in the section "Guidelines for Management and Use" under the subheading "Basic Guidelines," the APSLMP provides:

> "The primary primitive management guideline will be to achieve and maintain in each designated primitive area a condition as close to wilderness as possible, so as to perpetuate a natural plant and animal community where man's influence is relatively unapparent."

In the same section under the subheading "Structures and Improvements," the APSLMP provides:

> "1. All structures and improvements that conform to wilderness guidelines will be acceptable in primitive areas.
>
> 2. In addition, existing structures and improvements,
>
> (a) whose removal, though anticipated, cannot be provided for by a fixed deadline . . ."

On page 34, in the section pertaining to wild forest areas, the APSLMP provides:

> "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:
>
> ____
>
> -- fire towers and observer cabins as set forth below; . . ."

On page 36, still within the wild forest section, the APSLMP provides:

> **"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."

On page 50, the APSLMP section, "Special Management Guidelines" includes examples of parcels of land that may require special management to reflect unusual resource or public use factors, including:

> "...historic buildings, structures or sites not part of a designated historic area..."

On the same page within the same section, the APSLMP provides:

> "**Guidelines for Management and Use**
>
> 1. In no instance will the management of any of these lands be less restrictive than that of the major land classification in which they lie, but more restrictive measures may be employed where desirable."

On page 81, in Section III, Area Descriptions and Delineations, Primitive Areas, Wakely Mountain, the APSLMP provides:

> "Once the fire tower on Wakely Mountain is no longer needed, this area should be made part of the Blue Ridge Wilderness."

The Environmental Conservation Law sets forth the authority and responsibilities of the Department for the management of Forest Preserve lands. §3-0301 and §9-0105 prescribe the general powers and duties of the Department. Article 41 sets forth certain powers and duties of the Department within the Adirondack and Catskill Parks. Department authority specifically related to historic structures and improvements is provided in §9-0109 4.

§9-0109 4 of the ECL provides that,

> "Historic structures and improvements which are located within the Adirondack and Catskill parks and owned by the state prior to the effective date of this section [June 21, 1983] and which existed prior to acquisition by the state may be maintained provided that:
>
> a. The commissioner of parks, recreation and historic preservation finds that such structures and improvements are listed or are eligible to be listed on the state register of historic places pursuant to subdivision one of section 14.07 of the parks, recreation and historic preservation law; and
>
> b. The commissioner finds that such structures and improvements can be maintained for public enjoyment and understanding of the forest preserve or for departmental activities necessary in protecting forest preserve lands in the parks in a manner that will not disturb the existing degree of wild forest character of land on which the pre-existing structures or improvements are located or the wild forest character of land adjacent thereto; and
>
> c. Such maintenance is in accordance with reasonable regulation of the forest preserve in the Adirondack and Catskill parks consistent with article fourteen of the state constitution.

> The recording provisions of section sixty-three of the public buildings law shall apply if such structures and improvements are not maintained or are substantially altered or demolished."

Article 14 of the Parks, Recreation and Historic Preservation Law sets forth the responsibilities of State agencies with regard to historic preservation.

§14.01 provides, in part:

> "The legislature determines that the historical, archeological, architectural and cultural heritage of the state is among the most important environmental assets of the state and that it should be preserved."

§14.05 provides, in part:

> "1. The commissioner [of OPRHP] shall continue and advance a statewide historic preservation program which shall include:
>
> > (a) Surveying and inventorying historic places and properties for nomination to the national register and state register of historic places; and
> > (b) Continuing planning activities to foster the preservation and management of historic properties as living parts of our communities and the effective representation of historic preservation in state environmental planning activities; and . . ."

§14.07 sets forth the law pertaining to the State register of historic places, inventory of historic property, and a statewide comprehensive historic preservation plan.

§14.09 sets forth the requirements of State agencies with regard to activities affecting historic or cultural property.

Code of Federal Regulations Title 36, Chapter I, §60.1 (b) provides that properties designated as National Historic Landmarks automatically are listed on the National Register of Historic Places.

9NYCRR §427.1 provides that,

> "All historic places within the State listed on or nominated by the commissioner for inclusion on the National Register shall be listed on the State Register."

Alternatives

The planning team analyzed several alternatives by weighing their advantages and disadvantages with regard to legal, cultural, educational and environmental considerations. The analysis of alternatives is presented in Appendix 16.

Objectives

- Maintain the Wakely Mountain fire tower as long as it is needed for radio communications, recreation, education and historic preservation purposes.
- Maintain the observer cabin and helipad as long as they are needed to support the purposes for which the fire tower is maintained.

Actions

- Restore the fire tower for radio communications and public recreational access. Conduct restoration work and install radio equipment after consultation with OPRHP. Inspect all metal. Replace all rusted parts and paint all metal. Replace all wood, including stairs, landings and the cab floor, with new pressure treated lumber. Add wire fencing to the staircase. Inspect and tighten guy wires. Repair and paint the wood window frames in the cab. Investigate the replacement of the missing panes of glass with a durable substitute material. Consider as an alternative used on other towers the removal of the windows and the installation of an open steel grid. Repair concrete footings.
- Secure the observer cabin. Repair and lock the existing window shutters and the cabin door.
- Permit the volunteer maintenance and interpretation of the fire tower complex through a stewardship agreement under the Adopt-A-Natural-Resource policy. Make the fire tower and cabin available for use in the interpretation of the fire tower complex. Allow interpretive activities and methods that are limited in scope and subject to approval by the Department in consultation with APA. Do not permit overnight stays in the cabin by the public or those engaged in restoration or maintenance activities.
- Remove the two existing privies. Install one new privy in a suitable location.
- Remove the picnic table from the summit.
- Reconstruct the helipad of pressure-treated lumber in the same place as the existing structure with the same dimensions–25 feet square. Cut balsam fir and red spruce trees (all between two and six inches DBH) to create a roughly circular clearing with a 50-foot radius from the center of the helipad. Blend the clearing with the surrounding forest so that it does not have a sharp edge or a regular geometric shape. Maintain the clearing through the regular and selective cutting of spruce and fir reproduction, leaving the clearing fully vegetated with small trees and shrubs.
- Install a repeater system consisting of a solar-powered conventional repeater with a transmission power of four to eight watts (Daniels Electronics Ltd. or equivalent) mounted within a protective enclosure in the tower's cab measuring

approximately 40 inches by 23 inches by 17.5 inches. Install a protective enclosure for the radio system to occupy approximately 5.5 square feet (11 percent) of the cab's 49 square feet of floor space. Leave the rest of the cab open for public use. Mount between two and four Deka L-16 batteries (or equivalent) within the enclosure with the repeater. Mount a low-profile omnidirectional antenna on a bracket located on a corner of the tower cab roof. A typical antenna would be between five and six feet long and project approximately four feet above the peak of the roof. Mount four BP Solar 275 75-watt solar photovoltaic panels (or equivalent), each measuring 46.8 inches by 20.9 inches by 1.5 inches, on the tower structure below the cab. Connect the repeater system to the ground with a grounding wire and rod.

- Conduct work related to the installation of radio equipment, the rehabilitation of the fire tower and observer's cabin, the reconstruction of the helipad, and ongoing maintenance work after August 1 and before May 15, except for emergency radio equipment repair.
- Conduct helicopter landings after August 1 and before May 15, except in emergencies, to minimize impacts on Bicknell's thrush.
- Work with APA to develop a comprehensive Adirondack fire tower management plan, addressing all State owned fire towers in the Adirondack Park, through a process that includes public involvement.

REGULATIONS

Current Situation and Assumptions

A principle of wilderness management is that the wilderness environment should be protected with minimal regulation. However, some regulation is necessary to assure that public use will conform with wilderness management guidelines. Existing regulations relating to the public use of State lands under the jurisdiction of the Department are found in 6NYCRR Part 190. They are effective in preventing many types of behavior that can damage wilderness resources. However, the wilderness guidelines of the APSLMP and some of the management proposals for the BRW and WMPA require the promulgation of new regulations.

In 2001 new regulations for the High Peaks Wilderness (HPW) were adopted. While some of the regulations addressed issues specifically related to the HPW, others, such as camping group size limitations and the prohibition of the use of motorized equipment, were intended to implement APSLMP guidelines for all wilderness areas. Still others, not specifically required by the APSLMP, were adopted to protect essential characteristics of the wilderness environment. At present, public use levels and impacts in the BRW and WMPA are much lower than they are in the HPW. However, to preclude the potential transfer of use impacts from wilderness areas where new regulations are put in place to those relatively free of regulation, it is prudent to adopt a consistent set of regulations for all wilderness areas. The new regulations proposed for the BRW and WMPA constitute the minimum level of regulation necessary to implement the guidelines of the APSLMP and to protect resources and the experiences of visitors.

New regulations must be adopted in accordance with the Environmental Conservation Law, Department policies and procedures, the State Environmental Quality Review Act (SEQRA), and the APSLMP. Statutory authority for regulatory change is found in ECL §9-0105(3), ECL §9-0105(3) and the Adirondack Park Agency Act (Executive Law §§ 816.1 through 816.3). Section 816.3 of the Act directs the Department to develop rules and regulations necessary to implement the APSLMP.

Objectives

- Adopt regulations necessary to implement the guidelines of the APSLMP.
- Use the minimum degree of regulation necessary to protect wilderness resources.

Actions

Amend 6NYCRR §190.13 (Wilderness Areas in the Adirondack Park) to apply the following regulations to the BRW and WMPA:

1. Group size restrictions.
   a. In the Blue Ridge Wilderness and Wakely Mountain Primitive Area, no person shall:
      i. be part of a day use group containing sixteen or more people;
      ii. on or after July 1, 2005, camp as part of a group including nine or more people; or
      iii. be a member of an affiliated day use or camping group which exceeds the numerical limitations established in items (i) or (ii) above, unless such group has separated into smaller groups which do not exceed such limitations and such smaller groups maintain a separation distance from each other of at least one mile at all times.

2. Camping restrictions. In the Blue Ridge Wilderness and Wakely Mountain Primitive Area, no person shall:
   a. erect or use any tent platform or camp structure other than tents, tarps, lean-tos, or those composed of snow;
   b. camp at a primitive tent site where more than three tents are erected; or
   c. camp at locations which are greater than 3,500 feet in elevation except at a primitive tent site.
3. Campfire restrictions. In the Blue Ridge Wilderness and Wakely Mountain Primitive Area, no person shall ignite or maintain a campfire for any purpose at any location within 150 feet from any road, trail, spring, stream, pond or other body of water except that a campfire may be ignited or maintained at a primitive tent site or lean-to site.
4. Miscellaneous restrictions. In the Blue Ridge Wilderness and Wakely Mountain Primitive Area, no person shall:
   a. use any audio device which is audible outside the immediate area of a tent site or lean-to;

b. use soap or detergent in any pond, stream or other water body;
c. dispose of any food scrap, food matter or food container in any pond, stream or other water body;
d. use any motorized equipment;
e. fail to comply with a lawful instruction or order of a uniformed employee of the department;
f. mark trails with plastic ribbons, paint, blazes or other devices, cut or clear trails, or mark summits with canisters except by written permission of the department;
g. leave a pet unattended or fail to maintain complete control over the pet;
h. fail to have, in their immediate possession, proof of a valid and current rabies inoculation for any dog which is accompanying them;
i. erect or maintain any commemorative features, such as signs, plaques or markers depicting cultural sites, unless permitted by the Department;
j. undertake any research project except under permit of the department;
k. fail to take reasonable steps to keep food, food containers, and garbage from bears, such as the use of bear proof canisters or rope hanging systems;
l. possess a glass container, except that glass containers which are necessary for the storage of prescribed medicines shall be exempt from this prohibition;
m. erect or maintain any structure not specifically permitted by this Part;
n. store a boat or other personal property.

In addition, existing regulations should be amended to increase penalties for the illegal use of motor vehicles on Forest Preserve lands.

EDUCATION AND INTERPRETATION

Current Situation and Assumptions

The Department distributes a number of publications about Forest Preserve recreational opportunities, recommendations and regulations. Forest rangers are the Department's representatives in the backcountry. In their daily interactions with the public and in more formal classroom settings, rangers advocate the principles of the *Leave No Trace* program. The Department also enters into partnerships, including stewardship agreements with fire tower friends groups, many of whom have developed interpretive programs and conducted educational activities at fire tower sites. Inquiries into establishing a friends group for the Wakely Mountain fire tower have been made by private citizens. The Department would consider entering into a stewardship agreement with a friends group if the planning process were to result in a decision to retain the tower.

Though the Department provides information about the Forest Preserve in a number of ways, it has not yet adopted a formal plan for providing information to visitors. There is no system for presenting information about the broad range of Forest Preserve topics to

all prospective users in a comprehensive and organized way. Many people do not clearly understand that all State lands within the Adirondack Park are part of a single Adirondack Forest Preserve. They are confused about the differences between the Forest Preserve and the other public lands in the state. People can also be confused about the distinctions between public and private lands in the Park because of its complex pattern of public and private ownership. It is often difficult for people to know when they are on public lands and when they have entered onto private property. Many families find themselves lost, confused, and unable to find the activity that matches individual or family interests or skills. Families driving the Adirondacks' scenic byways are particularly affected by the lack of information about where to stop and what they are seeing.

A lack of information can diminish the quality of the recreational experiences of visitors, who are unable to adequately plan their Adirondack trips. Unsatisfactory experiences can cause visitors to shorten their stays and not return, thereby reducing benefits to the economies of Adirondack Park communities. Better information about the natural, cultural and recreational values of the Forest Preserve could lead to better visitor experiences for a wider range of visitors and the development of a broader constituency for the Forest Preserve. An information system designed to reach visitors before they leave home and to direct them to sources of information once they have entered the Adirondack Park would increase their enjoyment and understanding of the Forest Preserve, protect Forest Preserve lands and support the regional economy.

Information should be provided that would direct visitors to areas specifically suited to their recreational interests while emphasizing the need to respect and protect Forest Preserve resources. Information about an individual management unit should reflect its characteristics and management objectives. For instance, because a major goal for the BRW is to maintain a recreational environment characterized by a high degree of solitude, information should not imply that the area is underused and more use is encouraged.

The Department has not yet produced an informational brochure specific to the BRW and WMPA. A publication should be developed that would include a map of the unit in the broader context of surrounding communities and provide extensive interpretive information, along with sources of information about local tourist attractions and services. The publication should be designed as a component of a family of publications patterned after the acclaimed *Adirondack Forest Preserve Map and Guide*. The quality of the publication should reflect the value and importance of the information provided.

A major part of the mission of Camp Sagamore is to interpret the history of the property in the context of the development of the Forest Preserve. A number of Sagamore's activities take place on the Forest Preserve lands that once were part of the original Sagamore estate. These lands, largely within the BRW, are included in Sagamore's National Historic Landmark designation. The outlying ruins of buildings once included in the estate, notably the hydroelectric complex, are considered by Sagamore to be vital to their educational programs and interpretive activities.

Objectives

- Provide information about the BRW and WMPA to educate people about the history, values and management objectives of the area as well as its recreational opportunities.
- Provide information about the BRW and WMPA in the context of regional communities and the regional tourist economy.
- Develop an information distribution system designed to inform prospective visitors to the BRW and WMPA before they arrive.
- Support the efforts of educational institutions and organizations to inform the public about the history and values of the BRW and WMPA.
- Support the Sagamore Institute by providing public information to clarify the distinction between public and private lands. Design trails and parking areas to accommodate appropriate public use of the BRW and WMPA while minimizing interference with access to Sagamore and the potential for trespass onto Sagamore lands.

Actions

- Develop a high-quality color brochure with the graphic design elements of the *Adirondack Forest Preserve Map and Guide* focusing on Forest Preserve lands in the region of Long Lake, Indian Lake, Blue Mountain Lake and Raquette Lake, including the BRW and WMPA. Include information about Forest Preserve history, management guidelines, recreational opportunities, recommendations about safety and natural resource protection, and sources of regional tourist information.
- Keep the publication continuously in print and make supplies available to tourist organizations and local businesses as well as highway rest areas and Department offices.
- Provide assistance to the publishers of commercially-produced trail guides and maps with the purpose of assuring the accuracy and suitability of all public information about the BRW and WMPA.
- If the Wakely Mountain fire tower is retained, pursue a stewardship agreement with a friends group. Promote appropriate interpretive programs and educational activities at the fire tower site.
- Incorporate messages about the distinctive bird community present in subalpine forests over 2,800 feet in publications and trailhead signage. Include information about the potential impacts of human intrusion and recommendations to minimize impacts, such as “please stay on trails. Continue partnerships with the National Audubon Society, Adirondack Mountain Club and other groups involved in education and the conservation of Adirondack birds.

RESEARCH

Current Situation and Assumptions

The Forest Preserve has great scientific value as a protected landscape where natural processes operate with minimal human influence. Because they are large consolidated blocks of protected land where human activity is strictly limited, wilderness areas are especially valuable as living laboratories, both for the study of natural systems and human behavior.

The Department is concerned with the day-to-day management of the Forest Preserve and the preparation of unit management plans. The availability of Department staff for direct research is limited. However, because sound management relies on good information, the Department supports research efforts by others and occasionally funds research by consultants. Research conducted on Forest Preserve lands has included the mapping and identification of wetlands, the identification of rare species, critical habitats and significant natural communities, the ecology of plants and animals, forest and wildlife health, the effects of acid precipitation, the distribution and impacts of nonnative fish species and wilderness recreation. Research has been conducted by the Natural Heritage Program, the Adirondack Lakes Survey Corporation, Federal agencies and a number of universities.

A substantial amount of basic information about rare species, critical habitats and ecological communities has yet to be gathered on Forest Preserve lands in general and the BRW and WMPA in particular. The implementation of the Limits of Acceptable Change management system begins with the gathering of significant amounts of baseline data about the location and condition of structures and improvements, as well as an array of information about visitors. Managers need a more accurate picture of public recreational use numbers, patterns and trends, as well as a better measure of the expectations and interests of the public and how satisfied they are with their experiences in the BRW and WMPA. The research needed for LAC implementation in the BRW and WMPA has yet to be conducted.

The archaeological sites located within the BRW and WMPA, as well as additional unrecorded sites that may exist on the property, may be made available for appropriate research. Any 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 consultation with the New York State Museum and the Office of Parks, Recreation and Historic Preservation. Extensive excavations are not likely to be permitted as part of any research program to assure that the sites will remain available to future researchers who are likely to have more advanced tools and techniques as well as more fully developed research questions.

Objectives

- Conduct and support research within the BRW and WMPA whose purpose is to increase public knowledge, understanding and enjoyment of natural and cultural resources.
- Conduct and support research needed as a foundation for the management of the BRW and WMPA.

Actions

- Conduct a BRW and WMPA visitor study based on selected LAC indicators and standards.
- Identify and map the ecological communities of the BRW and WMPA.
- Complete the identification and mapping of populations of rare plant and animal species, significant natural communities and critical habitats. Specifically, survey all lands above 2,800 feet for Bicknell's thrush.
- Support research on the effects of public recreational use of the BRW and WMPA on ecological communities and processes, with special attention to endangered and threatened species and species of special concern, such as the common loon and Bicknell's Thrush.
- Support research to determine whether acid deposition is reducing the 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.
- Update fish and wildlife inventories periodically.

Section 5 – Historic Great Camps Special Management Area
—— *Special Area Plan* ——

The Department proposes to establish a Historic Great Camps Special Management Area (HGCSMA) consisting of Forest Preserve lands within the Blue Ridge Wilderness (BRW) and Moose River Plains Wild Forest (MRPWF) located in the vicinity of the historic properties at Camp Sagamore and Camp Uncas. The purpose of this designation is to recognize the importance of the Great Camps as cultural resources of state and national significance, their contribution to tourism and educational and cultural programs in the region, and the importance of the management of the Forest Preserve lands around them, formerly parts of their original estates, in supporting the preservation of the Great Camps. Further, the designation is an acknowledgment that the educational and recreational programs of the Sagamore Institute emphasize the close connection between the history of the Great Camps and the creation and evolution of the Forest Preserve, and thereby promote the understanding, appreciation and enjoyment of the Forest Preserve by the public.

Because the HG CSMA includes lands within both the BRW and MRPWF, this special area plan will be incorporated within the UMPs for both areas. It is likely that the UMPs for the BRW and MRPWF will be adopted at different times. Therefore, management proposals in the portion of the HGCSMA affecting lands within a particular management unit will be finalized only when the UMP for that unit is adopted. Should the management proposals in the special area plan for the HGCSMA be changed in the UMP adopted later, the first UMP will be amended to include the changes, so that the final UMPs for the BRW and MRPWF will contain identical special area plans.

The HGCSMA plan presents background information and focuses on management issues and proposals of particular importance to the relationship between the Great Camps and surrounding Forest Preserve lands. Additional background information and management proposals which may apply within the conceptual boundary of the HGCSMA are presented in the UMPs for the BRW and MRPWF.

Location and Boundaries

The boundaries of the HGCSMA are shown in Appendix 20, Map 2. They were chosen to encompass the major historical and archaeological resources of the former Great Camp estates now within the BRW and MRPWF, and the structures and improvements for public recreational use whose construction, maintenance and management have the potential to affect the environment of the Great Camps and to be affected by the educational and recreational programs of the Sagamore Institute. The boundary does not encompass Kamp Kill Kare because the complete original estate remains in private hands and is managed for private purposes.

Access

Sagamore Road is a town highway open to public motor vehicle use from Route 28 south to a point about 100 feet north of the northern bridge over South Inlet. It is maintained by the Town of Long Lake. The town highway ends at the point where formerly a gate allowed entry only to the owners and guests of Camp Sagamore, Camp Uncas and Kamp Kill Kare. From that point south the road crosses Forest Preserve lands within the MRPWF, serving as the right-of-way to Camp Sagamore, Camp Uncas and Kamp Kill Kare. A large parking area on the west side of the road, across from Camp Sagamore, serves as overflow parking for Sagamore and public parking for Forest Preserve access. The road also provides public access to Forest Preserve lands within the MRPWF and BRW. At present, public motor vehicle access is permitted to the point where the roads to Camp Uncas and Kamp Kill Kare diverge. At this point two gates block public motor vehicle passage. The public is permitted to travel on foot or by bicycle beyond the gates to gain access to Forest Preserve lands and waters, including Mohegan Lake.

Easements

Bear Pond Sportsmen's Club: In 1987 the Bear Pond Sportsmen's Club, Inc. sold their land to the State, subject to a 35-year use reservation on a 10-acre and a one-acre parcel with camp buildings in Lot 4, Township 5, T&C Purchase, along with a right-of-way for ingress and egress. The reservation expires on March 26, 2022. In a 1967 Supreme Court decision, the club's legal right-of-way was determined to follow a route beginning on State Route 28 near the Eighth Lake Campground, proceeding along the old Uncas Road, then what was known as the Old Carnahan Road. The club has an easement for a road segment, beginning and ending on the Old Carnahan Road, known as the "St. James Mountain cutoff," which was conveyed to the club in 1976 by the Trustees of the Emilie M. Bullowa Memorial Endowment for Camp Bullowa Trust–then owners of Camp Uncas–to allow the club to avoid a steep section of the club's original right-of-way. This easement is When the State acquired the club's land, an inspection of the club's legal ROW revealed that the work needed to rehabilitate the road at the time would be substantial, and its use could have significant environmental impacts. Therefore, the parties entered into an agreement allowing club members and guests to drive from Sagamore Road to Mohegan Lake Road, then past a gate and on along Bear Pond Road to the use reservation areas. The Department annually issues the club a temporary revocable permit (TRP) for access along this route.

Great Camps and Former Caretaker Lot: Camps Sagamore, Uncas and Kill Kare all have deeded rights for access along existing roads across Forest Preserve lands, as well as for locating power and telephone lines along those roads. Sagamore and Mohegan Lake Roads also provide access to a two-acre parcel with a residence, originally constructed by the Rockland County Council, Boy Scouts of America, Inc. for the caretaker's family, located beyond the existing gate at the beginning of Mohegan Lake Road. This parcel also has deeded rights for road access and utility lines.

Camp Sagamore Water Supply: Camp Sagamore has a deeded right to maintain a water system consisting of two spring houses and a water storage reservoir, situated within the MRPWF a few hundred feet south of the intersection of Mohegan Lake and Lake Kora Roads, and piping to Sagamore. The system is no longer active.

Camp Uncas Spring: Camp Uncas has a deeded right to use a spring located on adjacent Forest Preserve lands south of the camp property for a water supply, and to maintain the pipes leading from the spring along the bed of Mohegan Lake to the camp. The system is active. The 1976 deed conveying the 16 acres including the camp buildings also conveyed the right to use Mohegan Lake as "an alternative source of water supply."

Agreements

A September 15, 1975 agreement between the Department and Syracuse University imposes several conditions on the owners of the main Camp Sagamore building complex to assure that the parcel will be maintained in its original condition and managed in a manner compatible with surrounding Forest Preserve lands. The conditions include:

1. The buildings must be made available for public viewing and visitation at least one day per week during the summer.
2. The buildings must be preserved and maintained in accordance with their "period and architectural tradition," subject to the review and approval of the Preservation League of New York State.
3. No trees may be cut or destroyed except as necessary to protect the buildings.
4. No motorized boats or aircraft are permitted on Sagamore Lake.
5. No alcoholic beverages may be sold on the property.
6. Failure to observe any of the conditions for a two-year period will result in the forfeiture of the property to the Preservation League of New York State.
7. Should the owner wish to sell the property, the Preservation League of New York State has the right of first refusal at the original purchase price, plus the cost of capital improvements, adjusted for inflation.

On October 28, 1977 the Department entered into an agreement with the owners of private lands served by the segment of Sagamore Road from the end of the town highway south to the two gates controlling access along the roads to Camp Uncas and Kamp Kill Kare. The agreement specifies the responsibilities of each party with regard to the maintenance of the road and the two bridges over South Inlet, and provides that all signs bordering the roads are subject to Department approval.

An August 2, 1997 agreement between the Department and Sagamore Institute of the Adirondacks, Inc., which mainly concerns ownership and maintenance responsibilities for the three bridges on the roads between the end of the town highway and Camp Sagamore, includes a provision for sharing the maintenance of the road from the end of the town highway to the southernmost bridge over Sagamore Outlet, as well as the large parking area across from Sagamore. It makes no mention of the road south of that point. Once the MRPWF and BRW UMPs are adopted, these agreements should be

consolidated and updated to include new property owners and to reflect UMP provisions related to road and bridge maintenance responsibilities, the gating of the roads and other appropriate matters.

History

Late 1870s	William West Durant focused plans for recreational development on Township 40 with money inherited from his father, Thomas Clark Durant.
1880s	Durant built hunting lodges on the sites of Camps Uncas, Sagamore and Kill Kare.
Late 1880s	Durant purchased part of Township 5, and all of Townships 6 and 34, which encompass Blue Mountain Lake and the Eckford Chain, and comprise most of today's Blue Ridge Wilderness and part of the MRPWF.
1893-95	Durant built Camp Uncas on Mohegan Lake.
1895	Durant sold Camp Uncas and 1,550 acres to J. Pierpont Morgan.
1897-99	Durant built Sagamore Lodge on Shedd Lake.
1897	By this time Durant had sold nearly all Township 6–23,872 acres–to New York State. He reserved a 1,526-acre estate around Camp Sagamore and another 1,027-acre inholding surrounding Sumner Lake (Lake Kora), purchased in 1897 by Lt. Governor Timothy L. Woodruff.
1898	Lt. Governor Timothy L. Woodruff constructed Kamp Kill Kare on the site of Durant's Camp Omonson, built for Dr. Arpad Gerster before 1888.
1901	Durant sold Sagamore to Alfred G. Vanderbilt, who renamed Shedd Lake as Sagamore Lake.
1913	Woodruff sold Kamp Kill Kare to Vanderbilt.
1915	Fire did extensive damage to Kamp Kill Kare. Owner Francis P. Garvan, who acquired the property from Vanderbilt that year, rebuilt the complex over the next several years, following designs by architect John Russell Pope and designer Charles C. Hiscoe.
1915	Alfred G. Vanderbilt constructed a self-contained hydroelectric system for Sagamore. Vanderbilt died on the Lusitania.
1936	Two years after the death of W. W. Durant, the State named Lake Durant after him and installed a memorial plaque on a boulder near what is now Route 28/30.

1947	Morgan family sold Camp Uncas to Mrs. Margaret Emerson, widow of Alfred G. Vanderbilt.
1952, 1953	Margaret Emerson donated Camp Uncas to the Memorial Center for Cancer and Allied Diseases.
1953, 1954	Margaret Emerson donated Sagamore to Syracuse University.
1955	Margaret Emerson by deed confirmed an easement for ingress and egress across Sagamore lands to Camp Uncas.
Late 1950s	Herbert Birrell acquired Camp Uncas from the Memorial Center for Cancer and Allied Diseases.
1966	Herbert Birrell sold Camp Uncas to Adolph Jung.
1967	Adolph Jung sold Camp Uncas to Rockland County Council, Boy Scouts of America, Inc.
1971	Rockland County Council, Boy Scouts of America, Inc. sold Camp Uncas to Edward Borg, Salvatore Ciancimino and Joseph Nowicki, Trustees of the Alma M. Bullowa Memorial Foundation, Inc.
1975	New York State purchased all of the original 1,526-acre Sagamore estate from Syracuse University except 7.7 acres containing the main camp complex. In order to assure that the camp complex would be preserved in its original condition and managed in a manner compatible with surrounding Forest Preserve lands, the Department entered into an agreement with Syracuse University imposing a number of conditions.
1975	Syracuse University sold the 7.7 acres including the main Camp Sagamore building complex to the Preservation League of New York State.
1975	The Preservation League of New York State sold the 7.7 acres including the main Camp Sagamore building complex to the National Humanistic Education Center, a not-for-profit organization which became the Sagamore Institute.
1976	Edward Borg, William A. Metz and Frederick Van Wort, Trustees of the Emilie M. Bullowa Memorial Endowment for Camp Bullowa Trust sold 16 acres with the Camp Uncas building complex to Howard and Barbara Glaser-Kirschenbaum, board members of the Sagamore Institute.
1976	The Camp Sagamore main lodge and major buildings included in the original 7.7 acre parcel was listed on the National Register of Historic

Places. The boundary of the listed property was later expanded to 18.6 acres to include the caretaking complex.

1977 Edward Borg, William A. Metz and Frederick Van Wort, Trustees of the Emilie M. Bullowa Memorial Endowment for Camp Bullowa Trust, sold approximately 1,532 acres of the Camp Uncas estate to the People of the State of New York, reserving a two-acre parcel on the west side of Mohegan Lake Road.

1980 Camp Sagamore listed on the State Registers of Historic Places.

1983 Constitutional amendment passed to transfer 10.9 acres and the buildings of Sagamore's caretaking complex to Sagamore Institute in exchange for 218 acres purchased by Sagamore Institute for addition to the Forest Preserve. The Sagamore Institute now owns 18.6 acres including the entire historic core building complex.

1986 The Camp Uncas building complex within the 16 acres of private land on which they stand listed on the State Register of Historic Places.

1987 Camp Uncas listed on the National Register of Historic Places.

1989 Camp Uncas subdivided into four lots. Future subdivision is regulated by an APA permit, and maintenance and modification of the historic structures are subject to restrictions set forth in a recorded written agreement among the owners. The restrictions are intended to preserve the original character of the structures and grounds.

2000 In recognition of its architectural and cultural significance, Camp Sagamore with all of its original 1,526-acre estate designated a National Historic Landmark.

Structures and Improvements

ROADS

Sagamore Road is a town highway from Route 28 to the former Camp Sagamore boundary line at the northernmost bridge over the outlet of Sagamore Lake. From that point south the road is administered by the Department subject to easements for access to private lands. At present the public may drive south on Sagamore Road to the southern end of the Sagamore Lake trail. A spur serves an alternate entrance to Sagamore, with a bridge over Sagamore Lake outlet, and provides public access to the northern end of the Sagamore Lake trail in the BRW. This spur is the boundary between the MRPWF and the BRW.

Lake Kora Road: Lake Kora Road begins with a gate at the point where it and the Mohegan Lake Road diverge at the end of Sagamore Road. It affords access to the privately owned Kamp Kill Kare on Lake Kora. Owners and guests may proceed beyond the gate by motor vehicle. The public may not drive motor vehicles on the road, but may use it for nonmotorized access to adjoining State lands.

Mohegan Lake Road: Mohegan Lake Road begins with a gate at the point where it and Lake Kora Road diverge at the end of Sagamore Road. It proceeds to the boundary of the Camp Uncas property on the eastern shore of Mohegan Lake. At approximately 1.4 miles the road forks. The east fork continues 0.4 miles southward to the boundary of privately owned Camp Uncas.

Bear Pond Road: At a point on Mohegan Lake Road approximately 1.4 miles south of its northern end, Bear Pond Road forks west then south along the western shore of Mohegan Lake to the two areas where the Bear Pond Sportsmen's Club retains a use reservation. There is a gate at the beginning of the road. In accordance with the terms of a TRP issued annually to the club, members and guests may travel by motor vehicle beyond the gate along Bear Pond Road to the areas of use reservation. The use reservation expires on March 26 2022.

TRAILS

All the former carriage roads of the original Sagamore estate have been used as hiking and cross-country ski trails. They are known as the Cascades, Powerhouse, Big Slope, Blue Ridge (Farm Meadow), and Sagamore Lake trails. All the trails are within the BRW. Within the MRPWF, the trails known as the Beaverflow and Mohegan Lake trails are unmarked trails that have been used for cross-country skiing. People on bicycles are allowed on the Sagamore, Mohegan Lake and Lake Kora roads within Forest Preserve lands. From the gate at the beginning of Bear Pond road, the public may hike, bike and cross-country ski along the road. Approximately 0.5 miles from the gate, an unmarked foot trail leads to the shore of Mohegan Lake. At 0.8 miles a trail open for hiking, biking and skiing heads west and connects to the 7th-8th Lakes loop trail. None of these trails has been officially marked and maintained by the Department. People on horseback are allowed anywhere except on marked foot trails or on marked snowmobile or ski trails when they are covered with ice and snow.

MAJOR BRIDGES

There are two highway bridges on Sagamore Road beyond the end of the town highway, both crossing Sagamore Lake outlet. A third highway bridge crosses the outlet on the spur road to the back entrance to Sagamore. A bridge with two steel I-beam stringers crosses East Inlet on the Sagamore Lake trail. It is within the BRW. There are bridges on Bear Pond road that have not been inventoried.

TRAILHEADS AND PARKING AREAS

At or near the points where the trails near Camp Sagamore begin, there are small areas where people may park. The only area maintained for parking is the large former log landing on the west side of Sagamore Road, across from Camp Sagamore. This parking area is used by both Sagamore guests and those visiting nearby Forest Preserve lands. It can accommodate approximately 40 cars.

WATERWAY ACCESS SITES

A short path breaks off the Sagamore Lake trail near its northern end and leads about 50 feet to a waterway access site on Sagamore Lake. The site is used for the hand-launching of nonmotorized boats.

BARRIERS

Boulders or earthen barriers have been placed at the beginning of the Cascade, Powerhouse, Beaver Flow and Mohegan Lake trails, and at both ends of the Sagamore Lake trail. Gates control access at the beginning of the roads to Camp Uncas and Kamp Kill Kare, and near the point where the Bear Pond road leaves Uncas Road. They are both maintained by the private owners. Recently a sign was posted at the Uncas gate to indicate that the public may walk and bike beyond it. The sign at the Kill Kare gate does not clearly indicate the types of public access that are allowed.

PRIMITIVE TENT SITES

No locations have been designated as primitive tent sites. However, members of the public camp occasionally in the clearing near the beginning of the Powerhouse trail, in the old field near the intersection of the Big Slope and Sagamore Lake trails, and near East Inlet, east of Sagamore Lake.

DAMS

Two dams constructed in association with the Camp Sagamore hydroelectric complex are located on Sagamore Lake outlet. A low concrete dam at the head of the outlet, designed to use flashboards to control the level of the lake, is integrated with the bridge on the road to the back entrance of Sagamore. It appears to be in good condition. Another low concrete dam that formed a small impoundment upstream of the valvehouse and powerhouse has been breached, but appears stable.

A dam constructed of large rocks on the outlet of Mohegan Lake by William West Durant remains intact. No flashboards, gates or other means of regulating water level or streamflow were incorporated in its design. The purpose of the dam may have been to

create a brook trout pond for fishing (Michael Wilson, personal communication). It is not known whether the dam affects the level of Mohegan Lake.

SAGAMORE HYDROELECTRIC COMPLEX

In 1915 Alfred Vanderbilt constructed a self-contained hydroelectric system for Sagamore, consisting of a concrete dam at the head of Sagamore Lake outlet, a second concrete dam located approximately one-quarter mile downstream from the northern crossing of Sagamore Road; a stone-lined raceway leading to a 9-foot by 12-foot valvehouse, which controlled the flow of water to the powerhouse; a wood penstock used as a water conduit between the valvehouse and the powerhouse; a 26-foot by 33-foot powerhouse, or generator plant, approximately 1,100 feet downstream from the dam; and transmission lines from the powerhouse to the former transformer house on the Sagamore campus. The remnants of the dam, raceway, valvehouse, penstock and powerhouse remain in place within the BRW.

UTILITY LINES AND PRIVATELY-OWNED STRUCTURES

Power lines and telephone lines follow the roads to Sagamore, Uncas, Kill Kare and the former Boy Scout caretaker's residence on Mohegan Lake Road, in accordance with deeded rights. The spring house, two water storage reservoirs and piping to Camp Uncas are situated on land within the MRPWF about one-quarter mile south of the private land boundary. They continue to be used for the camp's water supply. Two spring houses, a water storage reservoir and piping to Camp Sagamore remain within the MRPWF a few hundred feet south of the intersection of Mohegan Lake and Lake Kora Roads. Sagamore's springhouses were replaced in 1914 by a shoreline pumphouse providing water from Sagamore Lake. A 1994 State Law prohibiting the use of surface water sources for public consumption required Sagamore to drill a well, which was completed in 1996. At the intersection of Sagamore, Lake Kora and Mohegan Lake Roads, there is a telephone relay and amplifier box serving the three camps. The telephone company has erected a wood fence to screen the box from the road. A small rustic wood cabin on the east side of Mohegan Lake Road, just south of the intersection, houses an electrical junction facility serving Uncas and Kill Kare. Near the gate at the beginning of Lake Kora Road the owners of Kamp Kill Kare have installed a keypad for operating the gate, a small structure which houses a battery backup for the gate and a delivery drop box.

Cultural Values[1]

William West Durant was a proponent of recreational development in the central Adirondack region. Using the wealth he inherited from his father, Durant built three Great Camps: Pine Knot, Uncas, and Sagamore in Townships 40, 5 and 6 of the Totten

[1]*This section was adapted from information provided by Michael Wilson of the Sagamore Institute.*

and Crossfield Purchase. Except for 16 acres including the camp buildings and a two-acre lot on Mohegan Lake Road, all of the original 1,550-acre estate of Uncas, Durant's second Great Camp, are now within the Moose River Plains Wild Forest. Camp Sagamore, his last Great Camp, is on the edge of what is now the Blue Ridge Wilderness, which includes all but 18 acres of the 1,526 acres that once were attached to Sagamore. The significance of Camps Sagamore and Uncas as cultural resources in the context of the history of the Forest Preserve lands that now surround them is demonstrably rooted first in changing American attitudes toward wild nature, which propelled the construction of Sagamore and Uncas in direct relation to the creation of New York State's Forest Preserve; and second in a sequence of specific events which document 130 years of growing public commitment to the protection of the public domain, and then of Camp Sagamore itself.

The Forest Preserve and Camp Sagamore share a common, nationally prominent distinction: the Department of Interior's National Park Service first declared the Forest Preserve a National Historic Landmark in 1963, and then Sagamore a National Historic Landmark in 2000. An effort has been initiated to seek National Historic Landmark status for Camp Uncas, which is a similarly exceptional example of original American resort architecture. Both the Forest Preserve and these early wilderness retreats represent profound changes in American attitudes toward wilderness. During the first half of the 19th century, when the national economy was still primarily agricultural, the wilderness was regarded as a foe to be conquered, or at best a resource to be exploited. But philosophers like Ralph Waldo Emerson and Henry David Thoreau, painters like Thomas Cole and poets like William Cullen Bryant were all shaping public attitudes toward wilderness as the edenic sign of God's presence, and the true source of national identity. Within three decades following the Civil War, when the nation transformed into an urban-industrial society, wild nature was rehabilitated as a source of physical and recreational as well as spiritual renewal. As the remaining, proximate wilderness for the nation's first large metropolitan centers, the Adirondack region became the focus of conservation measures, not only as a source of dependable water for canal systems and urban-industrial uses, but also as a resort for scenic and recreational tourism.

Camp Uncas was built in 1893-95, followed by the construction of Camp Sagamore in 1897-99, during a 15-year period following the creation of the Forest Preserve when more than a third of the region's woods and waters were acquired by some fifty-five private recreational preserves. Uncas and Sagamore were designed by William West Durant, the scion of an Adirondack transportation and recreational development empire founded by his father, Thomas Clark Durant, whose fortune derived from his aggressive entrepreneurship as vice president and general manager of the Union Pacific Railway, and creator of the infamous Credit Mobilier financing scheme. Durant created Uncas as his summer home, but finding himself in need of cash, sold it in 1895 to J. Pierpont Morgan. Sagamore was the last, largest, and most sophisticated of the numerous luxurious, wilderness retreats young Durant built or promoted from 1876, and which brought the Raquette Lake area international prominence as the preferred vacation site of some of America's wealthiest Gilded Age families. As financial mismanagement was bringing about the collapse of his empire, Durant sold Sagamore to newlywed Alfred G. Vanderbilt in 1901, and it continued to serve as that family's Adirondack retreat

following Vanderbilt's death on the Lusitania in 1915 until his widow, the social hostess Margaret Emerson, donated the Camp to Syracuse University in 1954.

Sagamore Institute's current 18-acre inholding is the result of three negotiations with New York State which span the entire history of the Forest Preserve, and characterize over a century of growing public commitment to its protection. The first began in the late 1870s, when the Durants' original development plans focused on Township 40, in which Raquette Lake was to serve both as a hub for their water transportation lines and the focal point for summer resort land development. Under growing public criticism for its disposal of public lands to the benefit of lumber, railroad, and other entrepreneurial interests, however, New York State increasingly became a buyer rather than a seller of Adirondack lands, and to the frustration of the Durants and many others had by 1881 appropriated most of Township 40 at tax sales. Not only did most subsequent attempts to wrest these valuable lands from the State fail, but a growing conservation movement stiffened its resolve: in 1883 the legislature prohibited further sales of public lands in the ten Adirondack counties, and by 1885 another law designated these lands a Forest Preserve, to be "forever kept as wild forest lands" governed by a special three-man commission rather than the Land Office. So William West Durant focused his development plans on adjoining lands, and within three years managed to purchase part of Township 5, and all of Townships 6 and 34, which encompass Blue Mountain Lake and the Eckford Chain, and comprise most of today's Blue Ridge Wilderness.

By 1897, when the expenses of building both Camp Uncas in Township 5 and neighboring Camp Sagamore in Township 6 within just five years had drained his resources, Durant negotiated the sale of nearly all Township 6—23,872 acres—to New York State, not at the ten dollars per acre that he sought, but still at a higher price than the State had yet paid for adding prime forest lands to the Forest Preserve. Moreover, after the sale closure in October, it emerged that not only was a 1,526-acre estate around Durant's Camp Sagamore and Shedd Lake excluded from the sale, also excluded were Camp Uncas and its 1,550-acre preserve around Mohegan Lake, recently acquired from Durant by J. Pierpont Morgan, and another 1,027-acre inholding surrounding Sumner Lake. The owner of this valuable parcel, entirely surrounded by lands that were now to be "forever kept as wild forest lands" by a unique, three-year-old constitutional amendment, was Timothy L. Woodruff, who was not only Lieutenant Governor, but chairman of the Forest Preserve Board that had met at Sagamore in July to inspect the land and negotiate the purchase price with Durant. By August Woodruff had taken possession of his privileged new estate, and was cutting a road to the site of an 1888 Durant hunting cabin on Sumner Lake called both Camp Omonson and Bear Camp. Within a year Woodruff had developed a luxurious, artful rustic compound which he named Kamp Kill Kare, renaming the lake Kora after his wife.

Thus are the origins of three private landholdings near the boundary between today's Blue Ridge Wilderness and Moose River Plains Wild Forest, Camps Uncas, Sagamore and Kill Kare, closely linked to the formative processes of the Forest Preserve and the adoption of successively stronger measures to protect it not only from private exploitation, but from dissipation by public agencies and legislatures alike. By voting in 1894 to amend the State Constitution with Article VII, Section 7, the citizens of New

York augmented the "forever wild" language of the 1885 Forest Preserve legislation with the enjoinder that Forest Preserve lands "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." Such thorough, uncompromising protection of the Adirondack watersheds served to thwart much overt corruption in public land sales and trades. However, the potential for enhancing the value of protected, private inholdings made venal conflicts of interest that characterized the Woodruff-Durant deal in Township 6 a great temptation. Constitutional protection certainly contributed to a moral climate in which Woodruff's exclusive acquisition was belatedly investigated as possible malfeasance by a special State commission and the popular press.

Cultural changes over the next century only deepened the convictions of New Yorkers that its public domain must be protected from exploitation. By the time New York State seized the opportunity to purchase the Sagamore acreage from Syracuse University for the Forest Preserve in 1975, an eighty-year history of more than a hundred rejections by voters of all legislative measures to significantly diminish constitutional protection, and the growing vigilance of guardian organizations, had resulted in ever stricter applications of the "Forever Wild" article. At this point State acquisition invoked the statutory policies of the APSLMP of 1972, which mandated the destruction of Sagamore's twenty-seven buildings as "non-conforming uses" in the Forest Preserve. Deploring such an erasure of cultural history, historic preservationists throughout the state intervened to arrange for the transfer of title to eight acres and 16 buildings of Sagamore's lower complex from Syracuse University directly to the newly formed Preservation League of New York State, who in turn sought a third party to purchase and assume stewardship of the buildings. By this means the strictures of (now) Constitutional Article XIV were circumvented, preserving the portion of Camp Sagamore deemed most architecturally significant through its indirect purchase by a non-profit, educational organization which became Sagamore Institute, while title to 1,517 acres of the original estate passed directly from the university to the State for inclusion in the Forest Preserve.

Valid objections were raised to this circumvention of constitutional protection. The exclusion of land and structures from a State purchase resulted in both cases—the 1897 Durant-Woodruff sale and the 1975 Syracuse University sale—in compromising the State's goal to eliminate inholdings and to consolidate the Forest Preserve. Mitigating circumstances certainly include the differences in motive between acquiring a private vacation retreat with a market value enhanced by State land protections and historic preservation for public educational purposes. Moreover, among the many restrictions permanently attached to Sagamore's deed were the provisions that the buildings and infrastructure, after twenty years of deferred maintenance in a harsh climate, were to be maintained in good condition or the Preservation League of New York State might repossess them without compensation; at least some public access must be permitted; and that the property could not ever be resold for more than the original purchase price and the costs of subsequent improvements. Of greater validity, however, was the objection that Sagamore's exclusion from the State purchase set a precedent that could be invoked in other Forest Preserve acquisitions for less meritorious purposes, and on more advantageous terms. As a result the obstacles to saving all of Sagamore increased significantly.

In 1977, only two years after the sale of Sagamore, the opportunity arose to add the Camp Uncas lands to the Forest Preserve. The 16 acres comprising the complete Camp Uncas building complex were separated from the rest of the 1,550-acre estate. The Sagamore Institute considered acquiring Uncas for its proximity and historical relationship to Sagamore, but was not in a position to accept the significant additional responsibility. The directors of the organization were able to personally acquire Uncas as their residence, to house Sagamore Institute staff and volunteers, and to provide access to members of the public who participate in Camp Sagamore programs.

By 1980 the attention that Sagamore and other Adirondack Great Camps were receiving had made it clear that their cultural significance was not confined to the architecture and social history of the rich and famous; the generations of artisan craftsmen and families who comprised the year-round caretaking communities were an essential part of their history. The exclusion of the eleven service buildings in Sagamore's upper, caretaking complex from the 1975 sale was now regarded as an error, but disagreement over other conflicts between environmental conservation and historic preservation elsewhere in the Forest Preserve left only one solution: a special constitutional amendment. This challenging process required first the passage through two legislative sessions of a bill calling for the exchange of more than 200 acres deemed an important acquisition to the Forest Preserve, and purchased by Sagamore Institute, for the 10 acres and buildings of Sagamore's caretaking complex. Then a coalition of advocacy groups, with the Preservation League again providing leadership, had to mount a campaign to persuade voters throughout the state to support this measure to reunite Camp Sagamore in a public referendum. On November 8, 1983 the amendment to "Save Sagamore" won the support of 62 percent of New York's voters, more than any of the eight propositions on the statewide ballot that year. Although this was a long, complex, and arduous process of public decision-making, in this case it served two complementary purposes: Camp Sagamore's cultural significance and the importance of constitutional protection for the Forest Preserve were at once brought to statewide attention.

The terms in which Sagamore is designated a National Historic Landmark focus primarily on the recognition that the Camp is the most "sophisticated" prototype of a new resort architecture that "exerted a strong and lasting influence on the design of rustic buildings developed in the national and state park systems in the twentieth century," beginning with Old Faithful Inn (1901) at Yellowstone, the world's first National Park in 1872. As "the first and fullest application of a rustic aesthetic in American buildings," the artful use of indigenous materials created buildings in many Adirondack Camps that are in visual harmony with their woodland settings, appear to have grown out of the ground, and that declared in their day a new affinity with wilderness. "We *belong* here, living a simple life close to nature," the architecture asserts. That this ideal was an elaborate, nostalgic, and picturesque illusion, however, is nowhere clearer than in the sheer scale—Sagamore had more than fifty buildings in its heyday—the municipal-grade infrastructure; social structures involving laborers, skilled craftsmen, guides, servants, guests and owners; and the worldly recreational pursuits of these single-family "trophy" camps.

Archaeological Resources

Known archaeological resources from the records of the New York State Museum and the New York State Office of Parks, Recreation and Historic Preservation in the vicinity of the HGCSMA are presented in Table 1. The designation of Camp Sagamore as a National Historic Landmark in 2000 encompassed the entire original estate of 1,526 acres. Therefore, the components of the former hydroelectric complex and the other structures, as well as former carriage roads, are included in the designation. Some of the old carriage roads, such as the trail around Sagamore Lake, are clearly evident, while others seem to have disappeared without a trace. Buildings like the valvehouse and powerhouse from the former hydroelectric plant remain substantially intact, though little remains of the former boathouse on South Inlet but the submerged cribbing on which the structure was built. Camp Uncas has not yet been designated a National Historic Landmark. It's listing on the

Table 1. Recorded Archaeological in the Vicinity of the Historic Great Camps Special Management Area

Quad	Site Name	Description
Raquette Lake (15')	Marion River Carry	1899-1900. Landing dock, engine house, old water tank, bridge remains. Blue Mountain and Raquette Lake Steamboat Line.
Blue Mountain (15')	Cedar River-Indian Lake Hydroelectric Plant	20th century. Concrete dam, canal, wood stave penstock, wood frame powerhouse. Now a vacation cabin.
Raquette Lake (15')	Camp Pine Knot Farm Site	1877-1960s. Cut and wire nails, bricks, red earthenware, coal, and vessel and flat glass. One outbuilding, two foundations, one rubble pile.
Raquette Lake (15')	Pine Knot Point Site, Adirondack Museum Accession No. 66-100.19a-c HAA 104-1	Collection retrieved from W.W. Durant property at Camp Pine Knot on April 1,1891. Artifacts recovered include 3 projectile points that came from Camp Pine Knot; 3 pieces of stone all having points, 1 black and 2 gray.
Seventh Lake (15')	Seventh Lake	Late Archaic, Transitional, Middle Woodland and Late Woodland.

State and National Registers of Historic Places refer only to the 16 acres including the main camp complex. However, a number of sites related to the camp's former 1,550-acre estate are situated on Forest Preserve lands. Table 2 lists the historic roads, structures and archaeological sites associated with Camps Sagamore and Uncas known to exist within or near the HGCSMA.

Table 2. Unrecorded Archaeological Sites Within or Adjoining Historic Great Camps Special Management Area

Site Name	Description
Camp Sagamore	
Sagamore hydroelectric plant	Concrete dam on South Inlet, raceway to valvehouse of brick with concrete roof (some hardware in place), channel with steel ribs of

Table 2. Unrecorded Archaeological Sites Within or Adjoining Historic Great Camps Special Management Area

Site Name	Description
	former wood penstock leading to powerhouse of brick with concrete roof, remnants of two turbines and other hardware in place, raceway to river.
South Inlet boathouse	Remains of boathouse for launch owned by W. W. Durant. Near South Inlet Falls. Only remnants of log and rock support cribs under water remain.
Gate house	Site of former structure where a watchman greeted guests. Near Cascades trailhead on Sagamore Road. Building removed.
Sagamore water supply	Ruins of two spring houses and a large circular concrete tile-lined reservoir south of intersection of Mohegan Lake and Lake Kora Roads, piping. No longer used.
Milking barn	Ruins, east side of old field known as "farm meadow," north side of Sagamore Lake.
Carriage and hay shed	Ruins, near farm meadow, north side of Sagamore Lake.
Sugar shack	Ruins between farm meadow and Sagamore Lake
Lineman's cabin	Remains of former seasonal farm dwelling on north shore Sagamore Lake.
George's Camp	Ruins of structure on south side of Sagamore Lake, east side.
Gloria's Lean-to	Ruins near Blue Ridge trail.
Well	Formerly used to water horses on former road to Sagamore, now called Big Slope trail.
Gazebo	Ruins near south shore of Sagamore Lake, west side.
Road around Sagamore Lake	Former Camp Sagamore carriage road. Now used as Sagamore Lake foot trail.
Road from Sagamore Road to South Inlet falls, east side Sagamore Outlet	Former Camp Sagamore carriage road. Now used as Powerhouse foot trail
Road from Sagamore Road to South Inlet falls, west side Sagamore Outlet	Former Camp Sagamore carriage road. Now used as Cascades foot trail.
Road from Powerhouse road to road around Sagamore Lake	Former Camp Sagamore carriage road. Now used as Big Slope foot trail.
Winter road to South Inlet falls	Former Camp Sagamore carriage road. Visible as it heads southward from Route 28 near bridge over South Inlet, becomes steadily less visible, disappears well before falls. Used as logging road during 1950s timber salvage operations.
1950 Blowdown salvage logging roads	Numerous roads constructed in early 1950s to remove timber affected by 1950 Blowdown. Roads concentrated in northwest portion of BRW, area most significantly affected by storm. Some entered unit from Route 28, some from Sagamore Road. Records and maps on file in Department's Northville office.
Camp Uncas	

Table 2. Unrecorded Archaeological Sites Within or Adjoining Historic Great Camps Special Management Area

Site Name	Description
Uncas water supply spring houses	Three springhouses, one remaining in use by owners of Camp Uncas. Concrete cistern, concrete and stone collection trough, piping along bed of Mohegan Lake. Used as water supply.
Cabin	Cellar hole with foundation walls on south side Mohegan Lake Road south of intersection with Uncas Road
Mink farm	Cabin cellar hole and pier blocks east of Mohegan Lake
Pumphouse	Standing structure with bark siding north shore Mohegan Lake. Pumped water to farm meadow.
Old farm meadow	Includes former apple orchard, north of Mohegan Lake, north side Bear Pond Road
Milking barn	Ruins in old farm meadow
Carriage shed	Ruins in old farm meadow
Durant dam	Rock dam on Mohegan Lake outlet

Public Use

Visitors to the HGCSMA engage in a variety of recreational pursuits throughout the year. The trail around Sagamore Lake and other trails in the vicinity of Great Camps Sagamore and Uncas are regularly traveled by the public, although they are not marked Department trails. In summer and fall many of the trails are popular for hiking, and several are used by groups participating in the educational programs of the Sagamore Institute. A long mountain biking route popularized on regional maps follows Sagamore Road to Mohegan Lake Road, Bear Pond Road and on through the MRPWF to Eighth Lake. Most visitors are day users, but occasionally people camp, mostly in the vicinity of Sagamore Lake. Occasionally a group of up to 12 people will camp by permit in the old farm meadow north of the lake. A clearing near the beginning of the Powerhouse trail is a popular camping spot. Sagamore staff report regularly removing litter. In winter most of the trails are attractive for cross-country skiing and sustain moderate use.

Anglers ply the waters of Sagamore and Mohegan Lakes, both of which contain lake trout. Mohegan Lake also hosts a population of smallmouth bass. Sagamore Lake outlet is a good brook trout stream popular with anglers. Angler use has caused the development of streamside pathways. Most anglers fish for the day, though some camp in the vicinity. Use of parking areas, trails and camping locations by anglers continues through summer and fall.

South Inlet is regularly traveled by motorized and nonmotorized boats. Canoes, kayaks, motorboats and jet skis land at the upstream limit of navigability near the attractive stretch of rapids known as the Cascades, identified on early maps as South Inlet Falls. Though the location of the wilderness boundary is not identified on the ground, it is estimated that the landing area is 500 to 1,000 feet on the wilderness side of the old

property boundary that separates the BRW from the MRPWF. The use of motorboats and aircraft is prohibited on Sagamore Lake. No regulation prohibits their use on Mohegan Lake.

Hunters enter the HGCSMA and neighboring parts of the BRW and MRPWF during the fall big game season, parking at a number of locations along Sagamore Road. On weekend days up to eight vehicles may be parked at the north entrance of the Sagamore Lake trail. Occasional parties of big game hunters travel across Sagamore Lake and up East Inlet. Hunting and trapping are prohibited by regulation in the Sagamore safety zone. However, hunters may carry their weapons for the purpose of hunting on Forest Preserve lands outside the safety zone.

Public motor vehicle use is permitted on Sagamore Road. Beyond the gates at the beginning of Mohegan Lake and Lake Kora Roads, only the landowners and their guests may drive. The roads are available for nonmotorized public use for access to Forest Preserve lands and waters.

With the exception of the unmarked trail around Sagamore Lake, winter use of the HGCSMA is generally very low. The trail around Sagamore Lake is suitable for skiing and snowshoeing and is used throughout the winter. Skiers also follow the unmarked Cascades, Powerhouse, Big Slope, Crossover and Beaverflow trails. The Mohegan Lake trail was used by skiers until 1996, when winter programs at Sagamore were curtailed.

Sagamore Road has been designated for public snowmobile use by the Town of Long Lake. Occasionally snowmobile tracks have been observed beyond the end of the town highway, on Sagamore Lake and the lake trail.

SAGAMORE PROGRAMS

From June through October, the Sagamore Institute conducts a wide variety of educational and recreational programs that involve excursions onto the Forest Preserve lands within the HGCSMA. Sites with building ruins associated with the history of the Great Camps are destinations for groups led on interpretive walks by Sagamore staff. Many programs involve tours of Camp Uncas. Tour groups walk along Sagamore and Mohegan Lake Roads. Sagamore provides visitors a map showing hiking and biking opportunities in the area. The bike route along Sagamore and Bear Pond Roads and the trail through the MRPWF to Eighth Lake is advertised on regional trail maps. Many who visit Sagamore also hike or bike along the roads and trails in the area or canoe Sagamore Lake. Sagamore offers the use of wheeled canoe carriers free of charge for those who want to transport their vessels to Mohegan Lake. Mohegan Lake Road is popular with bird-watchers.

PUBLIC USE IMPACTS

The impacts of public use within the HGCSMA are relatively low. Impacts related to use generally are confined to the vicinity of parking areas, trails and their destinations.

Impacts to soils and vegetation on the unmarked trails in the area are relatively low. The soils and vegetation in wet areas on some trails could be protected through minor trail reroutes or bridging. A systematic inventory of trail conditions would afford a clearer picture of resource protection needs.

Camping use in the area is relatively light, and there are few visible impacts. Few people camp on Sagamore Lake. Most overnight visitors stay at Camp Sagamore. Occasional camping may occur on an attractive peninsula with a sandy beach on the east end of the lake, south of East Inlet, though probably most use is day use. Minimal impacts to soils and vegetation are apparent, but the site is too close to shore to be suitable for designation. Another camping spot is an area of old fields known as the "farm meadow" on the northwest side of the lake, several hundred feet from shore. Use impacts have not been significant.

The area surrounding South Inlet Falls, also known as the Cascades, shows evidence of a moderate amount of day use. Most visitors travel by boat from Raquette Lake or the undeveloped canoe and kayak access path at Route 28, land at points on both sides of the river below the cascades, walk the short paths along both shores and explore the immediate area. Impacts of use are evident, but not excessive. Vegetation has been displaced from shoreline areas, though soils appear stable. Fire rings have been assembled near shore. Sagamore staff report that they remove a significant amount of refuse left by visitors.

Occasionally members of the public illegally drive snowmobiles on Sagamore Road beyond the point where the jurisdiction of the Town of Long Lake ends. Snowmobile tracks have been observed on Sagamore Lake and the Sagamore Lake trail.

PROJECTED USE

The HGCSMA is easily accessible, but is a significant distance from major population centers. It is likely that use levels will increase on the Sagamore trails once they are marked and maintained. However, because these trails exist and have been used for some time, their addition to the list of marked and maintained trails is not expected to result in significant increases in use. Off-trail use by hunters and trappers and impacts associated with their use are expected to decline in step with general trends.

The impacts of future use in the part of the HGCSMA within the BRW generally would be reduced through the adoption of regulations needed to implement existing APSLMP guidelines for wilderness, such as those limiting camping group size to eight people and prohibiting the public use of motorized equipment.

The proposed addition of information stations at various locations within the HGCSMA will significantly increase public understanding of available recreational opportunities, the location of the Sagamore safety zone and private land boundaries, and public use regulations. Clearer information could lead to moderate increases in public nonmotorized use of Mohegan Lake and Lake Kora Roads, as well as surrounding lands and Mohegan

Lake, while reducing inappropriate use. Moderate motor vehicle use of Mohegan Lake Road and boating use of Mohegan Lake by people with disabilities is expected to occur once the road is designated for use under the Department's CP-3 program.

The Sagamore Institute plans to winterize the café in the Chalet building in preparation for the resumption of winter operation as a base for cross-country skiing. The new winter program, with the availability of winter parking on Sagamore grounds, would be expected to result in a moderate increase in winter use of the trails in the HGCSMA.

Trends in use levels, patterns and impacts must be monitored to assure that HGCSMA management goals will continue to be met over the long term.

Relationship Between Public and Private Land

Camp Sagamore is owned by a not-for-profit organization dedicated to preserving the camp buildings and landscape setting in their original condition, and to educating the public about the history of Sagamore, Uncas and other Great Camps in the context of the creation and evolution of the Forest Preserve. Though Sagamore is not State-owned, the deed restrictions imposed on present and future owners reflect a vison for Sagamore as a permanently protected historical and educational resource for the people of the state. It is in the interest of the Department to manage the lands of the HGCSMA in a manner that is compatible with this vision.

Camp Uncas continues to be owned by the former directors of Sagamore Institute. The current directors also reside there. The camp complex and the surrounding lands of the former estate are incorporated in Sagamore's interpretation of great camp history. Uncas is a regular destination of Sagamore tour groups and is included in a number of programs.

Sagamore programs regularly involve hikes along former carriage roads to sites on Forest Preserve land that were associated with the original great camps. Those who participate in programs are provided with maps and encouraged to explore the roads and trails of the former estates, now within the HGCSMA, on their own. Many visitors may take a tour as one part of a visit that may involve canoeing on Sagamore Lake or a bike ride along Mohegan Lake and Bear Pond Roads.

Sagamore's diverse program offerings draw upon and emphasize the setting of vast undeveloped forest that was the original environmental context of the Great Camps, a setting now consisting entirely of Forest Preserve lands. Proposals to increase public access to lands and waters within the HGCSMA should be made with the understanding that the effectiveness of Sagamore's educational, interpretive and recreational programs is enhanced to the degree that the undeveloped and nonmotorized character of nearby Forest Preserve lands is maintained.

6NYCRR section 59.1 prohibits hunting and trapping within a described area of approximately 100 acres surrounding Camp Sagamore. The area was established as a safety zone around the camp complex with the purpose of supporting the viability of

Sagamore as a self-sustaining historic preservation and educational enterprise. It is important that the location and purpose of the boundary be clearly indicated through informational displays and the posting of signs.

The Kamp Kill Kare property at the end of Lake Kora Road is privately owned. Better information about private land boundaries and guidelines for the public use of Forest Preserve lands would encourage appropriate public use and help protect private land from trespass.

ECONOMIC IMPACTS

The tourist economy of the central Adirondacks is largely based on the attractive power of the landscape, the abundance of outdoor recreation and the richness of regional history, a key element of which is the development of the Great Camps. Camps Sagamore and Uncas are the only Great Camps in the area that are open to the public–Sagamore continually from spring through fall and Uncas during Sagamore tours and programs–making them important economic resources. The camps are prominently featured in the Adirondack Museum in Blue Mountain Lake and promoted as attractions in regional and statewide tourist publications and periodicals. Sagamore, Raquette Lake Navigation Company, which operates the Raquette Lake tour boat W. W. Durant, and the Adirondack Museum regularly join together to maximize their marketing effectiveness. In recognition of their unique and successful partnership, they received New York State's Millennium Arts and Business Partnership Award in 2000. Regional trail maps feature the camps along with hiking and biking trails on nearby Forest Preserve lands. Sagamore actively collaborates with other businesses to promote the kinds of tourism that are compatible with the goals behind the creation and ongoing management of the Forest Preserve and the Adirondack Park.

Education and Interpretation

The mission of the not-for-profit Sagamore Institute is largely focused on interpreting Sagamore in the context of surrounding Forest Preserve lands. The original estate, all of which was included in Sagamore's National Historic Landmark designation, includes all the former carriage roads and the ruins of the hydroelectric complex and other structures which are integral to Sagamore's educational mission and interpretive programs. Many of Sagamore's interpretive activities include visits to these sites, now within the BRW. A number of Sagamore programs include the Camp Uncas building complex as well as historic sites once part of the Uncas estate, now within the MRPWF.

According to Michael Wilson, Associate Director of Sagamore Institute, the interpretation of history at Sagamore is shaped by an essentially ecological mission on behalf of "nature, people, and their critical interdependence." Sagamore's architecture and social history are presented in relation to their wilderness setting. The larger design of Sagamore's interpretation focuses on the changing relations between culture and nature, asking guests to consider issues of sustainability in light of historical change. Based upon geological, botanical, wildlife, and photographic surveys of the Sagamore

Lake and farm meadow trails, Sagamore's interpretation of ecological history treats natural succession and human intervention as intertwined episodes. This approach, according to Wilson, is intended to explain interdependence and to demonstrate the meaning of the qualifying language in the APSLMP, showing how a designated wilderness "*appears* to have been affected primarily by the forces of nature, with the imprint of man's work *substantially* unnoticeable." According to Sagamore staff, the reactions of their guests have taught them that the decaying ruins of Sagamore's historic structures are powerful object lessons in this interpretation. Contradicting the illusion of an ahistorical, enduring nature that stands in independent opposition to human culture, ruins incorporate biological resilience within historical process, enabling people to reconsider the human role in natural processes with skepticism and humility. As opposed to interpretive signage, ruins can invoke the recognition that biological cycles operate on larger scales and over far longer chronologies than our market economy can accommodate, and that sustainable living turns upon reconciling the differences.

Camp Uncas gives direct and indirect support to the operation of Sagamore in the following ways:

- Hosting up to 70 volunteers for Sagamore work weekends.
- Serving as a training site for six interpreter trainees.
- Hosting activities and tours for Grandparents and Grandchildren camp sessions in July and August. There are seven sessions, each with 60 people.
- Hosting tours for great camp weekends in July and August.
- Hosting a tour or reception for the annual Sagamore benefit.
- Hosting tours during three three-night sessions for up to 90 Skidmore College freshman as part of an outdoor orientation program.
- Hosting tours for Elderhostel programs in autumn. 40 people attend each of eight sessions.
- Hosting a party for volunteers during the fall Sagamore work weekend.
- Hosting tours for other not-for-profit groups attending conferences at Sagamore throughout the year.

Past and Present Management

SAGAMORE SAFETY ZONE

In 1975 the State purchased all the former Camp Sagamore estate of 1,526 acres except for eight acres encompassing the main buildings. The property had long been posted against hunting and trapping, and the caretaker had maintained a small tame deer herd by a program of regular feeding. Soon after acquisition, the Department heard proposals to continue to manage the area as a wildlife refuge. Department wildlife biologists reviewed the proposals and concluded that there were no rare species or critical habitats within the former Sagamore property requiring protection beyond that afforded by existing laws and regulations. They recommended that deer feeding be discontinued, and hunting in the vicinity of the Sagamore buildings be suspended up to five years to protect the tame deer herd until they had dispersed.

A major issue raised by Sagamore representatives was the concern that the proximity of hunters bearing firearms, especially during the big game season, could deter people from visiting Sagamore and participating in its educational and recreational programs. The Department decided that the protection of the economic viability of the organization engaged in the preservation of Sagamore warranted the establishment of a safety zone around the building complex. In 1976, 6NYCRR section 95.1 was adopted, prohibiting hunting and trapping within a described area of approximately 100 acres around the Sagamore property (see Appendix 11).

Management Guidelines

The Adirondack Park State Land Master Plan (APSLMP) provides the general framework for the development and management of State lands in the Adirondack Park. In addition to setting forth guidelines for the management of State lands within each of the various classifications, the APSLMP contains Special Management Guidelines for areas or resources that require special management "to reflect unusual resource or public use factors." Examples include ". . . historic buildings, structures or sites not part of a designated historic area . . ." Guidelines include appropriate measures to protect, publicize and interpret important resources. Protective measures to be considered include limiting motorized access, rerouting trails and discouraging overnight camping.

The New York State Historic Preservation Act of 1980 (SHPA, Article 14 of Parks, Recreation and Historic Preservation Law) and its implementing regulations (9 NYCRR 426, 427 and 428) created the State Register of Historic Places and recognizes the National Register of Historic Places. The statute further obligates State agencies to act as stewards of historic properties (buildings, structures, objects and archaeological sites) they own and requires that agencies identify, evaluate and mitigate impacts to historic properties that might be affected by actions they undertake, fund or permit. The Department is also specifically charged with providing historic sites and services within the Adirondack Park in ECL Articles 9 and 41.

The historic and archaeological sites located within the HGCSMA, 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, Article 9 of Environmental Conservation Law, 6 NYCRR Section 190.8 (g) and Section 233 of Education Law. Unauthorized excavation and removal of materials from any of these sites is prohibited by Article 9 of Environmental Conservation Law and Section 233 of Education Law. In some cases additional protection may be afforded these resources by the Federal Archaeological Resources Protection Act (ARPA).

Management Goals

- Promote public recreational access and use of the HGCSMA in a manner which recognizes Great Camps Sagamore and Uncas as cultural, educational and economic resources of great local, state and national significance.

- Promote the use of the HGCSMA for the educational and recreational programs of the Sagamore Institute in ways that comply with the laws, regulations and policies governing public use of BRW and MRPWF lands and do not conflict with permitted uses of the area by the general public.

- Protect archaeological sites from vandalism and address safety issues, but allow them to succumb to the forces of nature. Manage historic structures in accordance with applicable laws.

Proposed Management Actions

ADMINISTRATION

The area manager for the HGCSMA will be the supervising forester in the Department's Northville office, who will coordinate management activities on Forest Preserve lands and waters. The apportionment of contributions to the maintenance of roads and bridges will be negotiated and set forth in memoranda of understanding. The maintenance of trails on Forest Preserve lands may be conducted by Camp Sagamore and Camp Uncas under stewardship agreements in accordance with the Department's Adopt-A-Natural Resource Policy. Actions by the Great Camps that may affect Forest Preserve lands under water, such as the construction or maintenance of structures on the beds of Mohegan and Sagamore Lakes, will be governed by temporary revocable permits (TRPs) and protection of waters permits.

The roads within the HGCSMA that lead to private lands and the areas of use reservation retained by the Bear Pond Sportsmen's Club may not be widened, relocated or otherwise altered by the landowners. No standing trees may be cut without written permission from the Department. Maintenance work such as resurfacing, the installation of new ditches or culverts, the replacement of existing culverts with new culverts that are larger or set in a different orientation, bridge work or other maintenance activities that could affect streams or wetlands may require a temporary revocable permit (TRP) from the Department or a wetlands permit from the Adirondack Park Agency.

FACILITIES

Boundary Lines

The boundary of the HGCSMA is a conceptual boundary. It will not be marked on the ground. Standard Forest Preserve boundary signs indicating classification will be posted at intervals along the sections of Sagamore and Lake Kora Roads that constitute the boundary between the BRW and MRPWF.

The boundary of the Sagamore safety zone has been marked on the ground through the posting of small signs. However, few signs remain, and the location of the boundary is not clear in many places.

Trails

Sagamore considers all the former carriage roads except the Blue Ridge trail essential to their interpretive programs and would be willing to maintain them under a stewardship agreement with the Department. In addition to the former carriage roads, Sagamore is interested in having the following former log skidding roads designated as public trails: a foot and cross-country skiing trail within the BRW known as the Crossover trail, connecting the Camp Sagamore Farm Meadow and the upper end of the Powerhouse trail, which would provide visitors an alternative to walking and skiing on Sagamore Road and would allow less confident skiers to avoid the relatively steep Big Slope trail; the Beaverflow trail within the MRPWF, a biking and cross-country skiing trail; and the Mohegan Lake trail within the MRPWF, a hiking and cross-country skiing trail which connects the main Camp Sagamore parking area with Bear Pond Road near the Uncas Farm Meadow, along with a short spur between it and Mohegan Lake Road known as the Traveling Rock trail. The adoption of these trails would provide a network of hiking and cross-country ski trails for public use throughout the year. The installation of Department signs and trail markers and the availability of public parking would clearly indicate that the trails are open to the public. In addition, the trails would serve the educational mission of the Sagamore Institute. The former carriage roads of the original Sagamore estate connect a number of sites and ruins that are included in Sagamore's National Historic Landmark designation.

Because the Sagamore trails already exist, new trail construction would not be required. Significant wet areas on some trails would be addressed over time through appropriate measures such as minor relocation or the installation of waterbars, ditching or bridging. A substantial bridge over East Inlet on the Sagamore Lake trail was constructed with steel I-beams, and therefore does not conform with APSLMP guidelines requiring the use of natural materials. It would be replaced with a conforming bridge when reconstruction was required. All work would be done according to detailed work plans based on field assessments conducted in consultation with APA. A short segment of the Sagamore Lake trail near the south entrance would be relocated farther from the boundary with the Sagamore property to reduce the likelihood of trespass.

The trail around Sagamore Lake has the potential for use by people with disabilities. Bridges could be modified to make them accessible. However, many parts of the trail along the south shore present major obstacles for people with disabilities, including significant drainage problems and uneven surfaces with thick vegetation. A pathway from the trail to a waterway access site on the lake near the trail's north end provides relatively easy access for nonmotorized boats. The boulder barriers at both ends of the trail need to be modified to permit wheelchair passage. The barrier at the north end should be moved closer to the beginning of the trail to prevent cars from parking along the beginning of the trail and blocking access.

The Cascades trail is an excellent trail for people with mobility impairments. It has a generally firm and stable surface with no steep pitches, very few surface obstacles, no bridges and no drainage problems. The turf of grasses that has grown over much of the surface of the former road outside the course of the narrow footpath would impede the passage of wheelchairs.

To help assure that public trail use would not exceed the capacity of the trails to withstand use, no sign advertising the trail system would be installed on Route 28. Trail registers would provide valuable information about use patterns and trends.

ACTIONS

- Mark and maintain the following trails within the BRW as foot and ski trails. Install "foot trail" markers as follows:

  Cascades trail - blue
  Powerhouse trail - blue
  Sagamore Lake trail - red
  Big Slope trail - yellow
  Crossover trail - yellow

- Mark and maintain the following roads and trails within the MRPWF as foot and bicycle trails. Install "trail" markers, with "bicycle trail" markers posted at access points and intersections, as follows:

  Beaverflow trail - yellow
  Mohegan Lake and Bear Pond Roads and trail to Eighth Lake - red
  Bear Pond Road south from intersection with trail to Eighth Lake - blue

- Mark and maintain the following trails within the MRPWF as foot and ski trails. Install "foot trail" markers as follows:

  Mohegan Lake trail - red
  Traveling Rock trail - yellow

- On the Sagamore Lake trail, move the boulder barrier on the north entrance out to the road, and modify boulder barriers and bridges to allow the passage of wheelchairs. Starting approximately 600 feet in on the south end of the Sagamore Lake trail, relocate 0.1 to 0.2 miles of the trail southward to increase the distance of the trail from the Sagamore property line. Add deck boards to fill gaps on the bridge over East Inlet, and replace a small bridge on the trail off the lake's southeast shore to make them accessible. When it needs reconstruction, replace the bridge over East Inlet with a new bridge constructed of natural materials.

- Pursue a stewardship agreement with Sagamore Institute for the maintenance of the trails within the HGCSMA.

Trailheads and Parking Areas

The system of existing unmarked trails in the HGCSMA are served by a number of existing parking areas and pulloffs. Proceeding north to south along Sagamore Road, those in the BRW are:

Cascades Trailhead: At the beginning of the Cascades trail, there is a clearing on the east side of Sagamore Road about 55 feet long that can accommodate four or five cars. The configuration of the parking area is awkward, and it is not clear how visitors are expected to park. A barrier consisting of three boulders blocks the trail, formerly a road, at a point about 75 feet from Sagamore Road. There are no signs at the trailhead, and there is no trail register. The trailhead serves both the Cascades trail and the Beaverflow trail.

When marked as a foot trail, the Cascades trail will be open to hiking and cross-country skiing. It leads to a waterfall on South Inlet, where travelers may wade the river or cross it on the ice to connect with the Powerhouse trail. Use levels are expected to increase. The Beaverflow trail will be open to hiking, biking and skiing, though use levels are expected to be low. A parking area designed to accommodate five cars - the present capacity - would accommodate five to 15 day hikers at one time. However, it is expected that seldom more than two or three cars would use the parking area simultaneously. Evening and overnight parking capacity required for the relatively low level of camping use expected would not overlap with most day use and so would not require additional capacity. Though solitude would not be as high a management priority on a trail near the periphery of the wilderness, the proposed parking capacity would not preclude opportunities for solitude along the trails throughout the year. The parking area has not been plowed in winter. If the parking area were plowed, winter use would be expected to be light, seldom requiring room for more than two or three cars.

ACTIONS

- Maintain the Cascades trailhead as a class II trailhead. Install a standard trail register near the parking area.
- Maintain the Cascades trailhead parking area with its existing capacity of five cars to accommodate appropriate levels of day use and camping. Make minor modifications to more clearly define the parking area.
- Install a sign approximately one and one-half by two feet with “Blue Ridge Wilderness” in a banner at the top and the wording, “Cascades Trailhead” in two- to three-inch letters with a directional arrow, printed on both sides in a location visible from Sagamore Road.
- Install a guideboard near the barrier giving the distance to the cascades.
- Plow the parking area for winter trail access.

Pulloff: A pulloff, apparently maintained by the Town of Long Lake, is on the east side of Sagamore Road between the Cascades and Powerhouse trailheads. It is approximately

70 feet long and 25 feet deep and can accommodate three cars parking parallel to the road. If plowed, it could afford winter access to nearby trails.

Powerhouse Trailhead: At the beginning of the Powerhouse trail, there is a clearing on the east side of Sagamore Road about 100 feet long that can accommodate five cars parking parallel to the road. The northern two-thirds of the parking area is surfaced with crushed limestone. A barrier consisting of three boulders blocks the trail, formerly a road, at a point about 150 feet from Sagamore Road. There are no signs at the trailhead, and there is no trail register.

When marked as a foot trail, the Powerhouse trail will be open to hiking and cross-country skiing. It leads to the hydroelectric ruins associated with Camp Sagamore and on to South Inlet Falls, where travelers can wade the river or cross on the ice to connect with the Cascades trail. It connects with a number of other trails in the area. The Powerhouse trail will be available for public use as part of the network of trails in the area. Sagamore staff will lead groups on educational trips to the ruins. But because the trail has several wet segments in need of drainage improvements, the Cascades trail will be the preferred route to South Inlet Falls. In addition, the Sagamore hydroelectric ruins should be protected from excessive public visitation. Therefore, the visibility of the trailhead should be minimized. Use levels are expected to be low.

The existing parking area could accommodate five to 15 day hikers and occasional camping use. However, it is expected that it seldom would be occupied by more than two or three cars. Though solitude would not be as high a management priority on a trail near the periphery of the wilderness, the proposed parking capacity would not preclude opportunities for solitude along the trails throughout the year. The parking area has not been plowed in winter. Winter trail access should be afforded through the plowing of the Cascades parking area.

ACTIONS

- Maintain the Powerhouse trailhead as a class III trailhead.
- Maintain the Powerhouse trailhead parking area with its existing capacity of five cars.
- Do not install a trailhead sign.
- Install a guideboard beyond the boulder barrier, not visible from the road, giving the distance to the Cascades.
- Do not plow the parking area in winter.

Sagamore Lake Trailhead and Waterway Access Site: The trail around Sagamore Lake connects with a road at both ends. Most people park at the north end in a small clearing at the beginning of the trail between the spur road that leads to the back entrance to Sagamore and the boulder barrier. The clearing is not suitable for parking and can only accommodate three vehicles. Additional cars park along the road, occasionally causing traffic congestion. Visitors should be redirected to other parking areas. There is an additional parking area not far before the beginning of the north end of the trail on the

south side of the spur road within the Moose River Plains Wild Forest. Though it appears to have been constructed before the land was acquired by the State, it is not signed. It is occasionally mowed by Sagamore staff and used for parking. The area is approximately 60 feet long and 25 feet deep and can accommodate six cars. There are no signs at either parking area, and there is no trail register. There is no room for parking near the south end of the trail.

When marked as a foot trail, the Sagamore Lake trail would be open to hiking and cross-country skiing. It would connect with a number of other trails in the area. It is expected that the Sagamore Lake trail would be more heavily used than the other Sagamore trails in all seasons. Most use would be day hiking, skiing and hunter access. As a former carriage road with a firm, generally level surface, the trail is capable of withstanding substantial foot traffic without sustaining significant physical impacts. It is likely that visitors would tolerate relatively high numbers of interpersonal encounters on this accessible trail on the periphery of the BRW near Camp Sagamore, a major tourist destination. Parking for 10 cars would be sufficient to accommodate anticipated use levels, which would not exceed the capacity of the trail to withstand use.

There has been confusion among the public about the availability of Sagamore Lake for public boating use. The lake has a good fishery and is open to the public for nonmotorized boating. A short path beginning near the north entrance of the Sagamore Lake trail affords access to the lake for the launching of canoes and kayaks. The point where the path enters the water presents some difficult footing that could be improved with the placement of one or two large rocks with flat surfaces. Presently there are no signs identifying the waterway access site.

Approximately one mile long and a third of a mile wide, it is likely that 166-acre Sagamore Lake could accommodate a fair number of boaters engaged in fishing or recreational paddling without causing most visitors to experience a sense of crowding. With the proximity of the lake to a public road and Camp Sagamore, visitor expectations for solitude probably would not be as high as they would be on an interior pond. However, it would be difficult to definitively establish the capacity of the lake to withstand recreational boating use without research. The *Water Recreation Opportunity Spectrum Users' Guidebook* (Aukerman et. al. 2004) presents a scientific approach to the management of recreation on lakes, ponds and rivers. According to the handbook, "the overarching goal of WROS is to provide planners and managers with a framework and procedure for making better decisions for conserving a spectrum of high quality and diverse water recreation opportunities." The handbook describes a spectrum of six classifications, from urban to primitive, in terms of appropriate activities, settings, experiences and benefits. It lays out procedures for planning and management, including excerpts from the report, *Visitor Capacity on Public Lands and Waters: Making Better Decisions* (Haas 2002) regarding the establishment of boating capacity. A table reflecting a number of sources of information gives a series of "reasonable boating capacity coefficients," defined as "the number of water surface acres adequate for each recreational boat in a particular WROS class." Using the table to make a preliminary determination of the boating capacity of Sagamore Lake, and classifying the lake in the "rural developed" WROS class, the reasonable boating capacity coefficient would range

from 20 to 50 acres per boat, giving the lake a maximum capacity of eight boats. Assuming that an average of two to four boats would originate from Camp Sagamore (Sagamore caretaker Bob Heinsler, personal communication), public parking for ~~eight~~ four vehicles would accommodate appropriate maximum public use levels. Research would be valuable in determining the relationship between visitor expectations and satisfaction once parking and information improvements have been implemented.

The total parking capacity of 14 cars needed during spring, summer and fall–10 for hikers of the Sagamore Lake trail and four for Sagamore Lake boaters–would partly be provided at the five-car parking area beside the spur road (assuming one accessible parking space and four standard spaces), with the other nine finding space in the large parking area within the MRPWF across from Sagamore's main entrance. The large parking area can accommodate up to ~~40~~ 50 cars and serves a number of destinations. Parking capacity for six vehicles is needed to serve those interested in hiking or biking Mohegan Lake Road, Bear Pond Road, or other trails in the MRPWF, as well as those who wish to canoe or fish Mohegan Lake. Therefore, parking capacity for a total of 15 vehicles is required to accommodate Forest Preserve visitors. The rest of the area is available for use by Sagamore visitors. The use of the large parking area by Sagamore tour and special event participants is permitted to help maintain the historic atmosphere of the Sagamore grounds. Continual automobile traffic to and from Sagamore's interior parking area, which is reserved for residents, would disrupt walking tours and intrude on the camp's visual and sound environment. The level and timing of the use of the large parking area by Sagamore guests has not significantly interfered with public use.

The parking areas near Sagamore have not been plowed in recent years. To provide access to the Sagamore Lake trail for skiing and snowshoeing, the 6-car parking area on the spur road should be plowed.

ACTIONS

- Maintain the parking area off the spur road to the back entrance of Camp Sagamore as the Sagamore Lake trailhead. Maintain it as a class II trailhead with a capacity for five cars, including one accessible space. Delineate the parking area with small boulders. Install a trailhead sign approximately one and one-half by two feet with "Blue Ridge Wilderness" in a banner at the top and the wording, "Sagamore Lake Trailhead" in two-to three-inch letters, printed on both sides. Install small signs with the wording, "Sagamore Lake Trail and Canoe Launch", one at the parking area and one at the beginning of the trail. Install a Storey register near the north entrance of the Sagamore Lake trail with a map and information indicating local trails, boating access and the borders of the Sagamore safety zone.
- Delineate the large parking area across from the main entrance to Camp Sagamore with boulders. Install a wood railing in the center of the parking area to indicate proper parking orientation. Communicate parking information to the public through the installation of signs and through personal contact by Department and Sagamore staff.

- Install a Storey register at the large parking area across from the main entrance to Camp Sagamore with a map and information indicating local parking, trails, boating access and the borders of the Sagamore safety zone.
- Move the boulder barrier at the north entrance of the Sagamore Lake trail back to within about 40 feet of the edge of the spur road, leaving room to allow road maintenance vehicles to turn around. Leave room for the passage of wheelchairs. Install a "No Parking" sign.
- Install a guideboard near the trail entrance giving distances to the Big Slope trail, Crossover trail and the distance of the complete loop.
- Place one or two large native rocks in the water at the foot of the Sagamore Lake waterway access path to improve footing for launching boats.
- Install appropriate educational signage at the canoe launch to mitigate or prevent the spread of non-native or invasive plants.
- Plow the five-car parking area off the spur road for winter trail access.

Mohegan Lake Parking Area: An accessible two-car parking area will be constructed for CP-3 permit holders on Bear Pond Road. It will be constructed near the point where an existing trail will be improved for accessibility to an accessible waterway access site to be constructed on Mohegan Lake. An accessible privy will be provided near the parking area. An educational sign about aquatic invasive plants will be posted.

Signs and Informational Displays

Signs and informational displays are effective means of providing information to the public. In general, informational and regulatory signs are posted at boundaries and access points rather than in the interior. Interior signing largely is limited to guideboards at trail junctions and signs about fishing and camping regulations. The APSLMP requires that signs on Forest Preserve lands be made of rustic materials and limited in number. Outside State or municipal highway right-of-way boundaries, signs on Forest Preserve lands must be installed or approved for installation by the Department and must conform with Department standards for form and content.

An expanded trail register structure, referred to as a class II trail register or "Storey register," originally designed by Mike Storey of the APA and later modified by Department staff, has been developed. It is intended generally for use at class II trailheads. It contains a space enclosed with a door for a trail register and brochures, and has an open panel where regulations and other information may be posted, along with a map of the area. The display area is covered with plexiglass. The structure would be appropriate at strategic locations to inform the public about recreational opportunities, boundaries and use guidelines.

ACTIONS

- Coordinate the design, wording and placement of all signs through the area manager.

- Install Storey registers, each containing a map and information indicating local parking, trails, boating access and the borders of the Sagamore safety zone, at the large parking area near Sagamore, the north entrance of the Sagamore Lake trail, and near the point where Mohegan Lake and Lake Kora Roads diverge from Sagamore Road.
- Post standard Forest Preserve boundary signs indicating the classification of the land being identified every one-tenth mile along all roads that pass through the HGCSMA and at other strategic locations.
- Do not advertise HGCSMA trails with a sign on Route 28.
- Mark the boundary of the Sagamore safety zone through the posting of small signs approximately every 100 feet along the boundary.
- Post signs at trail junctions, showing directions with arrows, with wording reduced to the minimum necessary.
- Eliminate sign clutter. Cluster signs on a single sign post or bulletin board placed where they are most likely to be seen by visitors.
- In general, except for guideboards at trail intersections, place informational signs on the periphery of the unit rather than in the interior. Post signs at interior locations only where necessary to protect important resources.
- Clearly identify the path to the waterway access site on Sagamore Lake.
- Install aquatic invasive species signs at near the canoe access trail to Sagamore Lake and Mohegan Lake.

Barriers

Gates installed on Forest Preserve lands for the purpose of controlling public access should conform with Department standards and permit free access to Department staff. The two privately owned gates where Mohegan Lake and Lake Kora Roads diverge from Sagamore Road are on Forest Preserve land and do not conform with Department standards. These gates are not operated to restrict Department administrative access, and a sign at the Uncas gate indicates that the public may walk and bike beyond it. However, the Kill Kare gate projects a sense that public access to Forest Preserve lands beyond it is restricted.

The Department proposes to permit people with disabilities who hold CP-3 permits to drive cars and trucks to a parking area to be constructed on Bear Pond Road near the point where an accessible trail will lead to the shore of Mohegan Lake. Gates along the CP-3 route must be managed to allow only permit holders to proceed by motor vehicle to the parking area, to restrict permit holders to the permitted route and to assure that only members and guests of the Bear Pond Sportsmen's Club may proceed by motor vehicle beyond the parking area.

ACTIONS

- Work with the owners of Camp Uncas and Kamp Kill Kare to replace the gates at the beginnings of Mohegan Lake and Lake Kora Roads with Department gates.

Provide an acceptable means of access through the gates for interior landowners and their guests.

- Provide access through the gate at the beginning of Mohegan Lake Road to CP-3 permit holders in a manner that will assure that members of the public other than CP-3 permit holders will not operate motor vehicles beyond the gate.
- Remove the gate at the beginning of Bear Pond Road and install a new gate on the west side of the parking area to be constructed for CP-3 permit holders at Mohegan Lake. Provide access through the gate to members of the Bear Pond Sportsmen's Club and their guests.
- Move the boulder barrier at the north entrance of the Sagamore Lake trail back to within about 40 feet of the edge of the spur road, leaving room to allow road maintenance vehicles to turn around. Leave room for the passage of wheelchairs. Install a "No Parking" sign.

Primitive Tent Sites

Camping is permitted throughout the HGCSMA, except within 150 feet of roads, trails and water. No primitive tent sites have been designated. The designation of tent sites in suitable locations to which visitors are directed through informational displays and publications could improve the recreational experiences of visitors in ways that would not conflict with other management objectives for the area.

ACTIONS

- Permit camping throughout the area in accordance with applicable regulations. A regulation proposed for the BRW would limit the size of camping groups to eight people.
- Designate two tent sites in the vicinity of Sagamore Lake that are visually screened from the lake and nearby trails. If a suitable location is found, make one site accessible for people with mobility impairments.
- In order to provide a sense of remoteness for day-use visitors with CP-3 permits, do not designate tent sites in close proximity to Mohegan Lake.

Sanitation

Forest Preserve lands are managed to preserve natural conditions and minimize human influence. Improper waste disposal by visitors can pollute soils and water, interfering with natural processes and affecting visitor health and safety. The appearance of food and drink containers, broken glass, food scraps and human waste can severely degrade the quality of the recreational experience for visitors.

The Department installs pit privies at locations where use levels are observed or expected to be high enough that the practice of burying waste in dispersed, individually selected locations would not succeed in protecting the environment.

ACTIONS

- Educate visitors about the principles of the *Leave No Trace* program, stressing the need for proper disposal of refuse and human waste and for the proper treatment of drinking water.
- Install privies at suitable locations where public use monitoring indicates that they are needed.
- Should a suitable location for an accessible tent site be found near Sagamore Lake, install an accessible privy connected to the site by an accessible path.
- Install an accessible privy near the Mohegan Lake parking area connected by an accessible path.

Classification

A review of the boundaries between the BRW and MRPWF revealed locations where minor classification and reclassification proposals could be made to improve the administration of this and adjacent units. Within the HGCSMA, the desirability of reclassifying the wild forest parcel east of the road between Sagamore Lake and Lake Kora to wilderness will be investigated.

Cultural Resources

Archaeological sites within the HGCSMA will be permitted to remain, subject to the forces of nature. They will be protected from vandalism through education and law enforcement. Minimal measures will be taken if necessary to protect public safety. Interpretation will occur through Sagamore programs at the Great Camps, tours and the use of publications rather than the installation of signs or exhibits at the sites.

SAGAMORE RUINS

In 1915 Alfred Vanderbilt constructed a hydroelectric system for Camp Sagamore. The components of the system remain within the HGCSMA. The unit management plan for the BRW and WMPA gives a complete presentation of the history of the site and current management guidelines, an analysis of management alternatives and a discussion leading to the selection of a preferred alternative for the management of the site.

Actions

- Retain the Sagamore ruins, subject to the free operation of the forces of nature, as important cultural resources for their value in interpreting the historical context of the creation and evolution of the Forest Preserve. Leave the valvehouse and powerhouse open for public viewing.
- Consult with OPRHP before taking any action that could affect historic resources within the BRW and WMPA.
- Secure the valvehouse by installing a wood wall approximately four feet high in the bottom of the doorway.

- Secure the doors and window shutters in a fully-open position to maintain safe access and permit natural light to enter the powerhouse.
- Rearrange and secure the unattached pieces of hardware lying on the floor inside the powerhouse to the minimum extent necessary to protect the public from an undue risk of injury.
- Inspect the steel hoops remaining from the penstock and take the minimum action necessary to protect the public from an undue risk of injury.
- Assess the safety issues of all other ruins and take the minimum action necessary to protect the public from an undue risk of injury. Consult with APA before taking action.
- Encourage methods of interpretation that do not involve the installation of signs or displays in or near the sites of the Sagamore ruins.

Public Use

The public will be allowed to use the Forest Preserve lands within the HGCSMA in accordance with the UMPs for the BRW and MRPWF and Department laws, regulations and policies for wilderness and wild forest areas. Staff and guests of the Great Camps will observe the same laws, regulations and policies on Forest Preserve lands as the general public.

The existing safety zone around Great Camp Sagamore will be retained. The boundary will be clearly identified on the ground through the posting of signs and on maps included in publications and mounted on Storey registers to be installed in the area.

Access

Lake Kora Road proceeds approximately 1.6 miles to the boundary of the Kamp Kill Kare property. It is not clear to the public that nonmotorized public travel is permitted along the road between the gate and the private land boundary. Measures should be taken to inform the public about appropriate access and use of HGCSMA lands and the need to respect private lands.

Winter access to the trails in the area, many of which are excellent for cross-country skiing, is limited by the lack of available parking.

Though there is no regulation prohibiting the use of Mohegan Lake by float planes or motorboats, there have been relatively few instances of public float plane or motorboat use. An objective of the Mohegan Lake CP-3 proposal, described below, is to provide access for people with disabilities to an area that is relatively unaffected by unnatural sights and sounds. A regulation prohibiting the public use of float planes and motorboats on Mohegan Lake would protect the historic environment of Great Camp Uncas and the natural environment of the lake for the public.

ACTIONS

- Give appropriate information about public access to HGCSMA lands through signage and informational displays at trailheads and other strategic locations, in informational brochures and on the Department website.
- Promote winter access by plowing parking areas. Seek assistance from State and local government agencies and volunteers.
- Adopt a regulation prohibiting public float plane and motorboat use on Mohegan Lake.

ACCESS FOR PEOPLE WITH DISABILITIES

The need to protect the wild character of Forest Preserve lands and the difficulties presented by their generally rugged terrain set limits on the degree of physical modification that can be made to improve their accessibility. However, there are a number of measures that managers can take. Improving the accessibility of suitable trails might require limited modifications to trail surfacing or tread width, consistent with APSLMP guidelines. Parking, bridge surfaces and approaches, privies and other parts of the built environment should be developed or improved where necessary to ensure accessibility. Informational access could be improved. Signs at selected trailheads could present information about trail surface type, length, average grade, average cross slope, maximum grade and slope, trail width, and hazards such as rocks, ruts, and roots that might be encountered on the trail. Information about a trail also could be provided in a simple pocket guide with a map showing the trail and the locations of obstacles. Providing information about trail characteristics would allow visitors to make informed decisions about their ability to use the trail.

ACTIONS

- Assess the trails within the HGCSMA with regard to their accessibility for people with disabilities. Use the information gathered to provide information to visitors. Prioritize the Cascades and Sagamore Lake trails.
- At the trailhead to the Cascades trail, add one accessible parking space. Modify the boulder barrier to allow the passage of wheelchairs.
- At Sagamore Lake, provide one accessible parking space in the six-car parking area to serve the lake trail. Modify bridges on the lake trail to make them accessible. If feasible, increase accessibility for the hand launching of boats from the existing path on the north side of Sagamore Lake outlet. Provide an accessible tent site along the Sagamore Lake trail if feasible. Modify boulder barriers at both ends of the trail to permit wheelchair passage.
- Incorporate accessible signage and trail registers at trailheads.

Mohegan Lake Access for People With Disabilities

Since 1977, when the State acquired all of the Camp Uncas estate except the main camp complex, the former Uncas lands were included in the MRPWF and have been open for public use. The public have been able to travel on foot or bicycle along Mohegan Lake Road, and Mohegan Lake has been available for public boating and fishing. However

until recently, gating and signage at the beginning of Mohegan Lake Road did not clearly convey that the road beyond the gate was open to public use. A sign provided by the owners of Uncas now correctly indicates that the road is open to public hiking and bicycling, but closed to unauthorized vehicles. There is a pathway wide enough for a hiker or biker to walk around the closed gate. The conformance of the pathway with accessibility guidelines has not been determined.

The existence of roads leading to the vicinity of Mohegan Lake presents an opportunity to provide limited motor vehicle access to a location near the lake for people with disabilities under Department policy CP-3. The unit management plan for the MRPWF gives a complete presentation of the history of the site and current management guidelines, an analysis of management alternatives and a discussion leading to the selection of a preferred alternative for the management of public access to Mohegan Lake for day use by people with disabilities.

ACTIONS

- Permit people with disabilities holding CP-3 permits to drive beyond the gate at the beginning of Mohegan Lake Road and along Bear Pond Road to an accessible 2-car parking area to be constructed near the beginning of an existing foot trail leading to the shore of Mohegan Lake. Remove the gate at the beginning of Bear Pond Road and install a gate at the west end of the parking area.
- Install an accessible privy near the parking area connected by an accessible path.
- Provide an acceptable means of access through the Mohegan Lake Road gate for interior landowners and their guests. Provide access through the gate to CP-3 permit holders in a manner that will assure that members of the public other than CP-3 permit holders will not operate motor vehicles beyond the gate.
- Post a sign at the Mohegan Lake Road gate indicating that public motor vehicle use beyond the gate is allowed by CP-3 permit holders only. Post a sign at the Lake Kora Road gate indicating that unauthorized motor vehicle use beyond the gate is prohibited.
- Make minor improvements to the surface of Bear Pond Road through the targeted application of gravel.
- Update existing road maintenance agreements with private landowners.
- Modify an existing trail approximately 650 feet long from Bear Pond Road to the Mohegan Lake shore at a location known as Boy Scout Point in conformance with proposed ADA Accessibility Guidelines and the APSLMP.
- Modify the shoreline to the minimum extent necessary to provide an accessible canoe launch.

Nonconforming Uses

A foot trail bridge over East Inlet near Sagamore Lake consists of two steel I-beam stringers and a wood deck. The APSLMP requires that foot trail bridges be constructed of natural materials.

Various structures near the intersection of the roads to Camp Uncas and Kamp Kill Kare are not listed in the APSLMP as conforming in wilderness or wild forest, including a telephone relay and amplifier box serving the three camps, a wood fence to screen the box from the road, a small rustic wood cabin on the east side of Mohegan Lake Road which houses an electrical junction facility serving Uncas and Kill Kare, a keypad for operating the Kamp Kill Kare gate, a small structure which houses a battery backup for the gate and a delivery drop box. Though nonconforming, these structures may remain if the landowners have legal rights to maintain them.

ACTIONS

- When the bridge over East Inlet near Sagamore Lake requires reconstruction, replace it with a new bridge conforming with APSLMP guidelines.
- Determine the legal status of the structures near the intersection of the roads to Camp Uncas and Kamp Kill Kare. Work with the landowners to remove nonconforming structures that may not legally be maintained.

Regulations

The draft BRW UMP proposes the adoption of a number of new regulations to implement the guidelines of the APSLMP and protect wilderness resources. The MRPWF UMP includes proposals for a number of regulation changes. In general, public use within the HGCSMA will be governed by the regulations that apply to the lands and waters of the BRW and MRPWF. Public information should stress the public use management differences between the two units.

Education and Interpretation

The Department publishes a general map and trail guide for the MRPWF, but has not yet produced an informational brochure specific to the BRW and WMPA. Future publications should be developed that would include maps of Forest Preserve management units in the broader context of surrounding communities, attractions and cultural resources, such as the Adirondack Museum and Great Camp Sagamore. They should provide extensive interpretive information, along with sources of information about local tourist attractions and services. The publications should be designed as a component of a family of publications patterned after the *Adirondack Forest Preserve Map and Guide*. The quality of the publication should reflect the value and importance of the information provided. Publications for the MRPWF and BRW should present a description of the HGCSMA and show its boundary on the maps.

A major part of the mission of Camp Sagamore is to interpret the history of the property in the context of the development of the Forest Preserve. A number of Sagamore's activities take place on the Forest Preserve lands that once were part of the original Sagamore estate. These lands, largely within the BRW, are included in Sagamore's National Historic Landmark designation. The outlying ruins of buildings once included in

the estate, notably the hydroelectric complex, are considered by Sagamore to be vital to their educational programs and interpretive activities. A number of Sagamore's programs also take place at Camp Uncas and on the Forest Preserve lands formerly included in the Camp Uncas estate.

ACTIONS

- Include Great Camps Sagamore and Uncas and the HGCSMA in high-quality Department publications about the MRPWF and BRW.
- Provide information about the HGCSMA in the context of regional communities and the regional tourist economy.
- Support the efforts of the Sagamore Institute to inform the public about the history and values of the Forest Preserve by maintaining trails for access to the HGCSMA and retaining the ruins of structures associated with the Great Camps for use in interpretive programs.
- Support the Sagamore Institute by providing public information to clarify the distinction between public and private lands. Design trails and parking areas to accommodate appropriate public use of the HGCSMA while minimizing the likelihood of uncontrolled public access to Camp Sagamore and Camp Uncas.

Schedule for Implementation

The actions listed in the following schedule for the implementation of proposed management actions within the HGCSMA also are included with estimated costs in the UMPs for the BRW and MRPWF. Accomplishments are contingent upon sufficient staffing levels and funding. Additional management proposals which may apply within the conceptual boundary of the HGCSMA are presented in the UMPs for the BRW and MRPWF. The implementation schedule for the various projects proposed for the HGCSMA should be viewed in the context of the schedules developed for other management units throughout the Forest Preserve.

ANNUAL ACTIVITIES

- Maintain wilderness and wild forest boundary signs and signs along the boundary of the Sagamore safety zone.
- Collect and submit trail register sheets and camping permits to unit manager quarterly.
- With assistance from Sagamore Institute under a stewardship agreement with the Department, perform routine maintenance of existing trails, including blowdown removal, brushing and trail marking in accordance with trail classifications and official trail marking standards. Perform routine maintenance of existing trailheads, privies, bridges, tent sites and signs.
- Maintain roads, bridges and gates according to the terms of a memorandum of understanding among affected parties.

- Stock fish in unit waters consistent with Bureau of Fisheries policies and *Programmatic Environmental Impact Statement on Fish Species Management Activities of the New York State Department of Environmental Conservation, Division of Fish and Wildlife*, June 1980.
- Monitor area to identify occurrences of invasive plants. Take appropriate action.
- Plow parking areas for access to Sagamore trails.

YEAR 1

- Sagamore ruins: secure valvehouse and powerhouse. Inspect other ruins and take appropriate safety measures.
- Propose reclassification of wild forest parcel east of road between Sagamore Lake and Lake Kora to wilderness.
- Adopt as official foot and ski trails following existing trails: Sagamore Lake trail, Big Slope trail, Crossover trail, Powerhouse trail, Cascades trail, Mohegan Lake trail and Traveling Rock trail . Adopt Beaverflow trail as an official foot, bicycle and ski trail. Install trail markers and remove blowdown. Develop and implement sign plan. Install Storey registers at both ends of Sagamore Lake trail and in large parking area across from main entrance to Sagamore. Designate two tent sites with fire rings in vicinity of Sagamore Lake. Move boulder barrier at north entrance Sagamore Lake trail closer to road. Modify boulder barriers at both ends of Sagamore Lake trail to allow passage of wheelchairs. Relocate Sagamore Lake trail near south entrance.
- Develop a stewardship agreement to allow the Sagamore Institute to maintain the trails within the HGCSMA.
- Work with owners of Camp Uncas and Kamp Kill Kare to replace Mohegan Lake Road and Lake Kora Road gates with Department gates.
- Initiate process of updating memoranda of understanding with owners of Camp Sagamore, Camp Uncas and Kamp Kill Kare pertaining to the maintenance of roads and bridges.
- Determine legal status of nonconforming structures near intersection of Mohegan Lake Road and Lake Kora Road, work with landowners to remove structures that may not legally be maintained.
- Modify parking area for Cascades trail to accommodate five cars, including one accessible parking space. Modify boulder barrier to allow passage of wheelchairs. Install standard trail register.
- Adopt regulation prohibiting public use of aircraft and motorboats on Mohegan Lake.

YEAR 2

- Develop existing parking area off spur road to back entrance to Sagamore to accommodate five cars, including one accessible parking space. Install signs.
- Delineate large parking area across from main entrance to Camp Sagamore with boulders, install railing in center to indicate proper parking orientation.

- Implement Mohegan Lake accessibility project, including upgrading Bear Pond Road, constructing accessible 2-car parking area, relocating Bear Pond Road gate, installing accessible privy, installing signs, making trail to lake shore accessible and constructing accessible canoe launch.

YEAR 3

- Conduct comprehensive fisheries surveys of Rock Pond and Sagamore Lake.
- Contract analysis of accessibility of Cascades and Sagamore Lake trails. Provide information at trailheads.

YEAR 4

- Fill gaps in deck of East Inlet bridge and replace small bridge on trail off Sagamore Lake's southeast shore to make them accessible.

YEAR 5

- Investigate options to improve accessibility of canoe launch on Sagamore Lake and implement if feasible. Investigate possibility of providing accessible tent site. If suitable site found, construct tent site with accessible privy.

Section 6 - Schedule for Implementation and Estimated Budget

The following tables outline a schedule for the implementation of proposed management actions and their estimated costs. Accomplishments are contingent upon sufficient staffing levels and funding. For some projects requiring specialized expertise or significant staff resources, the use of a contractor is specified. However it is expected that most projects will be done by Department staff. To conform with program budgeting practices, estimated project costs are based on current costs for materials and wages for seasonal staff labor, excluding fringe benefits and indirect costs. The estimates do not include capital expenditures for items such as equipment, nor do they include permanent program staff salaries. Therefore, costs shown are significantly lower than they would be for outside contractors. The implementation schedule for the various projects proposed for the area should be viewed in conjunction with the schedules developed for other management units throughout the Forest Preserve.

Annual Activities	Estimated Annual Cost
Maintain boundary lines (6 miles/year @ $300/mi.).	$1,800
Monitor boundary lines, identify all encroachments and take appropriate enforcement action.	PS[1]
Collect and submit trail register sheets and camping permits to unit manager quarterly.	PS
Obtain GPS locations and conduct inventories of all newly discovered tent sites, including those for which camping permits issued.	$200
Perform routine maintenance of existing trails, including blowdown removal, brushing and trail marking in accordance with trail classifications and official trail marking standards. 16.5 miles x $200/mile. Assumes Sagamore trails maintained under stewardship agreement.	$3,300
Perform routine maintenance of existing trailheads, lean-tos, privies, bridges, tent sites and signs.	$1,500
Enact voluntary trail closures during “frost–in” and “frost–out.”	PS
Conduct biological, chemical, and/or physical surveys of selected unit waters to assess management needs and to determine progress toward UMP objectives. One survey every two years. Cost is average annual cost.	$200

Annual Activities	Estimated Annual Cost
Maintain radio equipment on Wakely Mountain fire tower. Use helicopters after August 1 and before May 15, except in emergencies, to protect Bicknell's thrush.	$200
Stock fish in unit waters consistent with Bureau of Fisheries policies and *Programmatic Environmental Impact Statement on Fish Species Management Activities of the New York State Department of Environmental Conservation, Division of Fish and Wildlife*, June 1980.	PS
Work with APIPP to implement continuum of early detection invasive plant inventories focusing on all trails, parking areas, barriers, existing facilities, Cedar River Road and Sagamore Road and all waters with public access. Take immediate and appropriate action to eradicate or contain all "easy to contain-low abundance" terrestrial and aquatic invasive plant infestations. Train Department staff and educate the public about invasive species identification, prevention and management.	$3,000
Conduct surveys of moose, American marten, spruce grouse and spruce grouse habitat, boreal habitats and associated bird species such as Bicknell's thrush. Support statewide survey efforts, such as the Breeding Bird Atlas and New York Natural Heritage Program surveys. Inventory and map deer wintering areas.	PS
Maintain vista on Sawyer Mountain to existing dimensions.	$100
Work with DOT to assure that Slim Pond, Wilson Pond, NP Trail and Sawyer Mountain trailheads on Route 28 are plowed in winter. Make arrangements to plow the Cascade Pond trailhead.	PS
Plow parking areas for access to Sagamore trails.	$1,000
Total Cost – Annual maintenance and other activities	**$11,300**

Year 1	Estimated Cost
Designate unit manager and appoint unit management team.	PS
Sagamore ruins: secure valvehouse and powerhouse. Inspect other ruins and take appropriate safety measures.	$1,000

Year 1		Estimated Cost
Determine legal status of nonconforming structures near intersection of Mohegan Lake Road and Lake Kora Road, work with landowners to remove structures that may not legally be maintained.		PS
Implement appropriate BMPs at the encroaching Japanese knotweed infestations occurring beyond the southern, jurisdictional right-of-way of State Route 28 near reference marker 28-2209-127.		$500
Collaborate with DOT to eradicate parent stands of Japanese knotweed that occur within and beyond the maintained rights-of-way of Durant Road and State Route 28/30 near their intersection.		PS
Install aquatic invasive plant signage at the Sagamore Lake and South Inlet waterway access sites and the Sprague Pond trailhead.		$200
Remove contents of old dump sites between Golden Beach Campground septic system and Death Brook Falls and restore sites to natural conditions.		$15,000
Should engineering analysis determine that Golden Beach Campground septic system should be moved to location outside BRW, reclaim site of Golden Beach Campground septic system.		$5,000
Propose reclassification of wild forest parcel east of road between Sagamore Lake and Lake Kora to wilderness.		PS
Propose classification of unclassified Forest Preserve parcel off Durant Road to place part in BRW and part in BMWF.		PS
Rebuild Wakely Mountain helipad. (25' x 25'). Conduct construction activities after August 1 and before May 15 to protect Bicknell's thrush.		$7,500
Install radio repeater, solar panels and antenna on Wakely Mountain fire tower. Conduct construction activities after August 1 and before May 15 to protect Bicknell's thrush.	Equipment	$9,500
	Delivery and Installation	$700
Secure Wakely Mountain observer cabin. Conduct construction activities after August 1 and before May 15 to protect Bicknell's thrush.		$600

Year 1	Estimated Cost
Adopt as official foot and ski trails following existing foot trails near Sagamore Lake: Sagamore Lake trail, Big Slope trail, Crossover trail, Powerhouse trail, and Cascades trail. Install trail markers and remove blowdown. Develop and implement sign plan. Install Storey registers at both ends of Sagamore Lake trail and in large parking area across from main entrance to Sagamore. Designate two tent sites with fire rings in the vicinity of Sagamore Lake. Move boulder barrier at north entrance Sagamore Lake trail closer to road. Modify boulder barriers at both ends of Sagamore Lake trail to allow passage of wheelchairs. Relocate Sagamore Lake trail near south entrance.	$6,000 [2]
Develop a stewardship agreement to allow the Sagamore Institute to maintain the trails within the HGCSMA.	PS
Modify parking area for Cascades trail to accommodate five cars, including one accessible parking space. Modify boulder barrier to allow passage of wheelchairs. Install standard trail register.	$1,400
Install Storey registers at Cascade Pond and Wilson Pond trailheads.	$800
Install trailhead signs at Sawyer Mt., Cascade Pond and Wilson Pond trailheads. Install Northville-Lake Placid Trail guideboards in Lake Durant Campground. Install canoe access sign at Rt. 28 parking area for South Inlet.	$500
Install boulder barriers on each of three Gould road spurs, access road from Finch, Pruyn and Company lands north of Sugarloaf Mt., unmarked trail to Dishrag Pond, road off Cedar River Road approximately one-half mile west of Sprague Pond trailhead, winter road to South Inlet Falls. (In MRPWF, install boulder barriers on Gould Road, at end of Wakely Mountain parking area, end of new parking area for Cellar Pond route to Wakely Mountain.)	$700 [2]
Remove debris from target shooting area in former gravel pit off Cedar River Road east of Fletcher Pond. Plant a variety of native trees to supplement natural revegetation. Fix existing boulder barrier blocking former entrance road. Provide space for wheelchair passage. Designate one primitive tent site.	$600
Develop uniform method of collecting use data across unit.	PS
Inform public about upcoming regulations.	PS
Until regulation regarding camping group size is passed, suspend issuance of all camping permits for groups of 10 or more.	PS
Total Cost – Year 1	**$50,000**

Year 2	Estimated Cost
Develop LAC indicators and standards for trails, tent sites, lean-to sites and social conditions. Inventory selected indicators on marked trails.	$1,000
Rehabilitate Wakely Mountain fire tower for public access. Remove two privies, install new privy at appropriate location. Install secondary directional sign at intersection of Route 28 and Cedar River Road. Conduct construction activities after August 1 and before May 15 to protect Bicknell's thrush.	$5,000
Construct relocated section of Northville-Lake Placid trail from Wakely Dam to Stephens Pond, mark with blue NP Trail markers (7.3 miles). Install appropriate signs and guideboards. Replace Wakely Mountain trail register with Storey register (BRW and MRPWF).	$16,000 [2]
Block and brush in section of former Northville-Lake Placid Trail from intersection of new trail south of Stephens Pond southeast to private land boundary.	$400
Investigate new trail to Ledge Mountain or another suitable destination in Blue Mountain Wild Forest. If suitable opportunity found, amend Blue Mountain Wild Forest UMP and construct new trail. Once new trail constructed, discontinue maintenance of Sawyer Mountain trail and vista. Remove trail markers, trailhead signs and trail register. Maintain existing parking area for general access to BRW lands.	$400
Promulgate regulations.	PS
Install sign at South Inlet waterway access site. Install privy.	$700
Inspect and evaluate existing fish barrier dam on Sprague Pond to decide whether dam should be repaired, relocated or removed. If feasible, repair or replace dam, reclaim Sprague Pond and restock with heritage strain brook trout, possibly blacknose shiner.	$12,000 to rebuild dam
Build fish barrier dam on outlet of Slim Pond (R-P302), reclaim pond and stock with heritage strain of brook trout.	$3,000
Contract development and printing of 5,000 copies of BRW and WMPA brochure.	$2,000
Total Cost – Year 2	**$40,500**

Year 3	Estimated Cost
Inventory selected LAC indicators at lean-tos and primitive tent sites in zone 1.	$1,000
After Moose River Plains Wild Forest UMP adopted, construct parking area for 12 cars, including one accessible parking space, and construct foot trail from Limekiln Lake-Cedar River Road through Cellar Pond to summit of Wakely Mountain. Install trailhead sign, appropriate guideboards and Storey register. Mark with red trail markers. (MRPWF and WMPA)	$2,000 [2]
Construct and mark Slim Pond trail (blue) and install boulder barrier with space for wheelchair passage. Designate one tent site on Slim Pond, one on Bear Pond. Construct fire rings. Install trailhead sign and standard trail register.	$3,000
Remove refuse near Death Brook Falls trail. Mark trail (blue). Install accessible privy, trailhead sign and Storey register. Improve trail for people with disabilities. Install accessible bridge across wet spot near end of trail. Install barriers.	$10,000
Close and revegetate unsuitable campsites on Sprague Pond, construct or designate two tent sites conforming with APSLMP guidelines. Construct fire rings. Construct parking area (four spaces, including one accessible space). Replace gate with boulder barrier. Provide space for wheelchair passage. Install trailhead sign and standard trail register. Mark trail (red) and extend trail to locations of tent sites. Make minor trail accessibility improvements. If feasible, improve accessibility for hand launching of boats, provide accessible tent site (cost to be determined).	$6,000
Communicate with NYSDOT to schedule construction and paving of trailhead parking areas along Route 28 for Wilson Pond trail (six cars, including one accessible parking space) and Death Brook Falls trail (six cars, including one accessible parking space).	PS
Verify status of access road to cemetery off Durant Road. If appropriate, install boulder barrier.	$500
Conduct comprehensive fisheries surveys of Rock Pond and Sagamore Lake.	$400
Contract inventory of ecological communities, rare species and critical habitats.	$20,000

Year 3	Estimated Cost
Contract analysis of accessibility of Cascades, Sagamore Lake, Death Brook Falls and Sprague Pond trails. Provide information at trailheads.	$5,000
Construct or designate one primitive tent site on Wilson Pond conforming with APSLMP guidelines. Construct fire ring. Replace fireplace at Wilson Pond lean-to with fire ring.	$400
Close and revegetate campsite near Stephens Pond lean-to, construct or designate one new primitive tent site conforming with APSLMP guidelines. Construct fire ring. Replace fireplace at Stephens Pond lean-to with fire ring.	$600
Construct new lean-to along relocated NPT at suitable location between Gould road and Brown's Brook.	$7,000
Replace Cascade Pond lean-to at site that conforms with APSLMP guidelines. Construct fire ring. Install privy. Construct or designate one additional primitive tent site conforming with APSLMP guidelines. Construct fire ring.	$7,000
Locate and mark boundary between BRW and Lake Durant Campground on trails.	PS
Install bulletin board with information about nearby trails at parking area in Lake Durant Campground (LDC).	$0 [2]
Reprint BRW and WMPA brochure.	$1,000
Total Cost – Year 3	**$63,900**

Year 4	Estimated Cost
Contract with university to conduct visitor study, including an inventory of selected LAC indicators for social conditions in zones 1.	$20,000
Construct Wilson Pond - Cascade Pond crossover trail (1.6 miles). Mark with yellow markers, remove blowdown, construct bridges, install guideboards.	$3,000
Construct Cascade Pond parking area on west side of access road (proposed BRW). Install accessible parking space in existing parking area on east side of access road and define parking area with boulders (proposed BMWF).	$3,000 total project cost

Year 4	Estimated Cost
Fill gaps in deck of East Inlet bridge (65 feet) and replace small bridge on trail off Sagamore Lake's southeast shore to make them accessible.	$2,000
Construct bog bridging on Wilson Pond trail (200 feet).	$2,000
Reprint BRW and WMPA brochure.	$1,000
Total Cost – Year 4	**$31,000**

Year 5	Estimated Cost
Complete inventory of unmarked trails and primitive tent sites in zone 2. Inventory selected LAC indicators for unmarked trails and primitive tent sites in zone 2.	$3,000
Investigate the possibility of providing public parking on the access road from Cedar River Road through private lands to the BRW between Sugarloaf and Metcalf Mountains.	PS
Determine the status and location of a foot trail right-of-way from Route 28 across private lands near Crystal Lake to lands of the BRW.	PS
Develop sign inventory and sign plan.	$1,000
Investigate options to improve accessibility of canoe launch on Sagamore Lake and implement if feasible. Investigate possibility of providing accessible tent site. If suitable site found, construct tent site with accessible privy.	$3,000
Reprint BRW and WMPA brochure.	$1,000
Initiate UMP review and 5–year update.	PS
Total Cost – Year 5	**$8,000**

[1]Permanent staff alone will accomplish the task. Tasks for which costs are given also require the involvement of permanent staff.
[2]Cost does not include work to be done in other management units.

Cost Summary

Five Years Annual Maintenance Costs:	**$ 56,500**
Five Years New Projects:	**193,400**
Total Costs for Five Years:	**249,900**

Appendices

APPENDIX 1 – DEFINITIONS AND ACRONYMS

Definitions

Fisheries

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 nonnative 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 gamefish. 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 fishes and lack significant populations of salmonid fishes. Management may include stocking.

Adirondack Park State Land Master Plan Definitions

1. **Aircraft**--a device for transporting people or material that travels through the air and is propelled by a non-living power source contained on or within the device.

2. **All Terrain Bicycle**--a non-motorized bicycle designed or used for cross country travel on unimproved roads or trails.

3. **All Terrain Vehicle**--a motor vehicle designed or used for cross country travel on unimproved roads or trails. The term includes jeeps or other four wheel drive automobiles, dirt or trail bikes and all forms of "ATVs", "ATCs", and "ORVs", but excludes snowmobiles.

4. **Boat Launching Site**--a site providing for the launching of trailered boats, with ramp and attendant parking facilities.

5. **Campground**--a concentrated, developed camping area with controlled access, not meeting the standards for individual, primitive tent sites or lean-tos, which is designed to accommodate a significant number of overnight visitors and may incorporate associated day-use facilities. Campgrounds are commonly known as "campsites" by the Department of Environmental Conservation.

6. **Cross Country 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.

7. **Day-Use Area**--a developed facility designed to accommodate a significant number of visitors on a day-use basis only. The term includes such facilities as beaches, parkways, memorial highways, the Mt. Van Hoevenberg area, the alpine ski centers at Whiteface and Gore Mountains, boat launching sites and similar facilities.

8. **Fireplace**--a permanent structure constructed of stone and cement designed to contain and control camp fires.

9. **Fire Ring**--a temporary cluster of rocks designed to contain and control camp fires which may contain, in fire sensitive areas, a cement slab.

l0. **Fish Barrier Dam**--a man-made device or structure used to prevent the upstream or downstream movement of fish for the purpose of protecting a high-value native fishery.

ll. **Fishing and Waterway Access Sites**--a site for fishing or other water access with attendant parking facilities which does not contain a ramp for or otherwise permit the launching of trailered boats.

l2. **Foot Trail**--a marked and maintained path or way for foot travel located and designed to provide for reasonable access in a manner causing the least effect on the surrounding environment.

l3. **Horse Barn**--a rustic structure open on at least two sides designed to provide temporary shelter for a small number of horses.

l4. **Horse Trail**--a path marked and maintained for travel by horses, located and designed to provide for reasonable access in a manner causing the least effect on the local environment.

l5. **Improved Cross Country Ski Trail**--a marked and maintained path for cross country ski use designed for competitive or intensive use conditions which may be constructed, maintained or groomed with the use of motor vehicles.

l6. **Improvement**--any change in or addition to land, which materially affects the existing use, condition or appearance of the land or any vegetation thereon, including but not limited to foot and horse trails, roads, jeep trails, state truck trails, snowmobile trails, cross country ski trails, improved cross country ski trails, trail heads, picnic areas and individual primitive tent sites.

l7. **Lean-to**--an open front shelter made of natural materials suitable for transient residence, constructed according to a standard Department of Environmental Conservation plan and located so as to accommodate the need for shelter in a manner least intrusive on the surrounding environment.

l8. **Lean-to Cluster**-- more than two lean-tos within sight or sound of each other and generally separated by a distance of less than one-quarter mile.

l9. **Motor Vehicle**--a device for transporting people, supplies or material, incorporating a motor or an engine of any type for propulsion and with wheels, tracks, skids, skis, air cushion or other contrivance for traveling on or adjacent to land and water or through water. The term includes such vehicles as automobiles, trucks, jeeps, motorbikes, dirt or trail bikes, any type of all-terrain vehicles, duffle carriers, snowmobiles, snowcats, bulldozers and other earth-moving equipment and motorboats.

20. **Motorboat**--a device for transporting people or material that travels over, on, or under the water and is propelled by a non-living power source on or within the device.

2l. **Motorized Equipment**-- machines not designed for transporting people, supplies or material, or for earth moving but incorporating a motor, engine or other non-living power source to accomplish a task. The term includes such machines as chain saws, brush saws, rotary or other mowers, rock drills, cement mixers and generators.

22. **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.

23. **Non-Conforming Use**--a structure, improvement or human use or activity existing, constructed or conducted on or in relation to land within a given classification that does not comply with the guidelines for such classification specified in the master plan.

24. **Peripheral Visitor Registration Structure**--a primitive structure of natural materials open on at least one side and not designed for human habitation, located

at the periphery of units of state land, and intended to provide information and, where appropriate, control of access to such lands.

25. **Primitive Tent Site**--a designated tent site of an undeveloped character 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 on a temporary or transient basis, and located so as to accommodate the need for shelter in a manner least intrusive on the surrounding environment.

26. **Ranger Stations or Ranger Cabins**--enclosed buildings constructed or maintained by the Department of Environmental Conservation, suitable for human habitation and manned seasonally or year-round by administrative personnel to facilitate administrative control of lands and public use thereof under the jurisdiction of the Department.

27. **River**--a flowing body of water, or a stream or a section, portion or tributary thereof, including a river, stream, creek, run, kill, rill, branch or lake.

28. **River Area**--a river and its immediate environs, including river banks and the land on both sides of the river up to a distance of at least one-quarter mile but not more than one-half mile.

29. **Road**--an improved or partially improved way designed for travel by automobiles and which may also be used by other types of motor vehicles except snowmobiles, unless the way is a designated snowmobile trail; and is,

- either maintained by a state agency or a local government and open to the general public;
- maintained by private persons or corporations primarily for private use but which may also be open to the general public for all or a segment thereof; or,
- maintained by the Department of Environmental Conservation or other state agency and open to the public on a discretionary basis.

30. **Snowmobiles**--a motor vehicle designed solely for travel on snow or ice by means of a combination of tracks and a ski or skis.

3l. **Snowmobile Trail**--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 year.

32. **State Truck Trail**--an improved way maintained by the Department of Environmental Conservation for the principal purpose of facilitating administration of state lands or of allowing access for fire fighting equipment and not normally open for public use of motorized vehicles.

33. **Stream Improvement Structure for Fisheries Management Purposes**--a structure and/or improvement, including but not limited to, fish barrier dams, small rock or log dams, fish passage structures, minor diking, cribbing, bank stabilization and stream deflectors and other structures or improvements designed solely for fisheries management purposes which do not materially alter the natural character or resource quality of the water body, and which are made of natural materials wherever possible.

34. **Structure**--any object constructed, installed or placed on land to facilitate land use, including but not limited to bridges, buildings, ranger stations or ranger cabins, sheds, lean-tos, pit privies, picnic tables, horse barns, horse hitching posts and rails, fire towers, observer cabins, telephone and electric light lines, mobile homes, campers, trailers, signs, docks and dams.

35. **Tent Platform**--a platform, with or without walls and other attachments, erected as a base for tenting or similar camping activity.

36. **Trail Head**--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.

37. **Wetlands**--any land annually subject to periodic or continual inundation by water and commonly referred to as a bog, swamp or marsh, which is (i) one acre or more in size, or (ii) located adjacent to a body of water, including a permanent stream, with which there is free interchange of water at the surface, in which case there is no size imitation, and which (iii) meet the technical definition of 578.3®) of the Adirondack Park Agency Rules and Regulations.

38. **Wildlife Management Structure**--a structure or device designed solely for inventory or research purposes or for the protection or restoration of endangered species, including but not limited to animal enclosures or exclosures, traps, raptor hacking towers, nesting towers or boxes, that does not materially alter the natural character or resource quality of the land and that is made of natural materials whenever possible.

Acronyms

ADA	American with Disabilities Act
ADAAG	American with Disabilities Act Accessibility Guidelines
ADK	Adirondack Mountain Club
AFR	Assistant Forest Ranger
ALSC	Adirondack Lakes Survey Corporation
ANC	Acid neutralizing capacity
APA	Adirondack Park Agency
APIPP	Adirondack Park Invasive Plant Program
APLUDP	Adirondack Park Land Use and Development Plan

APSLMP	Adirondack Park State Land Master Plan
ATV	All Terrain Vehicle
BMWF	Blue Mountain Wild Forest
BP	Years Before Present
BRW	Blue Ridge Wilderness
DEC	New York State Department of Environmental Conservation
DMU	Deer Management Unit
DOT	New York State Department of Transportation
ECL	Environmental Conservation Law
ED/RR	Early Detection/Rapid Response
EIS	Environmental Impact Statement
EPA	Environmental Protection Act of 1993
EQBA	Environmental Quality Bond Act
FAA	Federal Aviation Administration
FR	Forest Ranger
JRWF	Jessup River Wild Forest
LAC	Limits of Acceptable Change
LDC	Lake Durant Campground
MRPWF	Moose River Plains Wild Forest
NBWI	Native-But-Widely-Introduced
NHPC	Natural Heritage Plant Community
NPS	National Park Service
NYCRR	New York Code of Rules and Regulations
NYS	New York State
OSP	Open Space Plan
SEQRA	State Environmental Quality Review Act
SPWF	Sargent Ponds Wild Forest
SUNY-ESF	State University of New York College of Environmental Science and Forestry
T&CP	Totten and Crossfield Purchase
TNC	The Nature Conservancy
UFAS	Uniform Accessibility Standards
USGS	United States Geological Survey
UMP	Unit Management Plan
USFS	United States Forest Service
WCLW	West Canada Lake Wilderness
WMPA	Wakely Mountain Primitive Area
WMU	Wildlife Management Unit

APPENDIX 2 – WILDERNESS AREAS: GUIDELINES FOR MANAGEMENT AND USE[1]

Basic guidelines

1. The primary wilderness management guideline will be to achieve and perpetuate a natural plant and animal community where man's influence is not apparent.
2. In wilderness areas:
   a) no additions or expansions of non-conforming uses will be permitted;
   b) any remaining non-conforming uses that were not removed by the December 31, 1975 deadline provided for in the original version of the master plan will be removed by March 31, l987;
   c) non-conforming uses resulting from newly-classified wilderness areas will be removed as rapidly as possible and in any case by the end of the third year following classification; and,
   d) primitive tent sites that do not conform to the separation distance guidelines will be brought into compliance on a phased basis and in any case by the end of the third year following adoption of a unit management plan for the area.
3. No new non-conforming uses will be permitted in any designated wilderness area.
4. Construction of additional conforming structures and improvements will be restrained to comply with wilderness standards for primitive and unconfined types of recreation and to permit better maintenance and rehabilitation of existing structures and improvements.
5. No new structures or improvements in any wilderness area will be constructed except in conformity with finally adopted unit management plans. This guideline will not prevent ordinary maintenance or rehabilitation of conforming structures or improvements, minor trail relocation, or the removal of non-conforming uses.
6. All conforming structures and improvements will be designed and located so as to blend with the surrounding environment and to require only minimal maintenance.
7. All management and administrative action and interior facilities in wilderness areas will be designed to emphasize the self-sufficiency of the user to assume a high degree of responsibility for environmentally-sound use of such areas and for his or her own health, safety and welfare.
8. Any new, reconstructed or relocated lean-tos or primitive tent sites planned for shorelines of lakes, ponds, rivers or major streams will be located so as to be reasonably screened from view from the water body to avoid intruding on the natural character of the shoreline and public enjoyment and use thereof. Any such lean-tos will be set back a minimum

[1] *From the Adirondack Park State Land Master Plan*

of 100 feet from the mean high water mark of lakes, ponds, rivers or major streams.

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

Structures and improvements

1. The structures and improvements listed below will be considered as conforming to wilderness standards and their maintenance, rehabilitation and construction permitted:
   - -- scattered Adirondack lean-tos, not including lean-to clusters, below 3,500 feet in elevation;
   - -- primitive tent sites below 3,500 feet in elevation that are out of sight and sound and generally one-quarter mile from any other primitive tent site or lean-to:
     - (i) where physical and biological conditions are favorable, individual unit management plans may permit the establishment, on a site-specific basis, of primitive tent sites between 3,500 and 4,000 feet in elevation, and,
     - (ii) where severe terrain constraints prevent the attainment of the guideline for a separation distance of generally one-quarter mile between primitive tent sites, individual unit management plans may provide, on a site-specific basis, for lesser separation distances, provided such sites remain out of sight and sound from each other, be consistent with the carrying capacity of the affected area and are generally not less than 500 feet from any other primitive tent site;
   - -- pit privies;
   - -- foot trails;
   - -- cross country ski trails;
   - -- foot trail and cross country ski trail bridges constructed of natural materials and, where absolutely necessary, ladders constructed of natural materials;
   - -- horse trails, except that any new horse trails will be limited to those that can be developed by conversion of appropriate abandoned roads, snowmobile trails, or state truck trails;
   - -- horse trail bridges constructed of natural materials;
   - -- horse hitching posts and rails;
   - -- existing or new fish barrier dams, constructed of natural materials wherever possible;
   - -- existing dams on established impoundments, except that, in the reconstruction or rehabilitation of such dams, natural materials will be used wherever possible and no new dams will be constructed;
   - -- directional, informational and interpretive signs of rustic materials and in limited numbers;
   - -- peripheral visitor registration structures; and,

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

2. All other structures and improvements, except for interior ranger stations themselves (guidelines for which are specified below), will be considered nonconforming. Any remaining non-conforming structures that were to have been removed by the December 31, 1975 deadline but have not yet been removed, will be removed by March 31, 1987. These include but are not limited to:
   -- lean-to clusters;
   -- tent platforms;
   -- horse barns;
   -- boat docks;
   -- storage sheds and other buildings;
   -- fire towers and observer cabins;
   -- telephone and electrical lines;
   -- snowmobile trails;
   -- roads and state truck trails;
   -- helicopter platforms; and,
   -- buoys.

Ranger stations

1. No new interior stations will be constructed and all remaining interior stations, other than Lake Colden, will be phased out on a scheduled basis determined by the Department of Environmental Conservation, in favor of stations or other facilities at the periphery of the wilderness areas at major points of access to provide needed supervision of public use. This phase-out should be accomplished as soon as feasible, as specified in the individual unit management plans.
2. New methods of communication and supply, complying with wilderness guidelines, will be employed with respect to all ranger stations maintained by the Department of Environmental Conservation after December 31, 1975.
3. Due to heavy existing and projected winter use in the Eastern High Peak area and the presence of the most rugged terrain in the Adirondacks, the Lake Colden station together with an associated on-ground line (i.e., a line laid on or just under the ground surface which rapidly becomes covered by leaves) for telephone communication may be retained indefinitely but their status will be periodically reviewed to determine if their eventual removal is feasible.

Motor vehicles, motorized equipment and aircraft

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

2. Administrative personnel will not use motor vehicles, motorized equipment or aircraft for day-to-day administration, maintenance or research.
3. Use of motorized equipment or aircraft, but not motor vehicles, by administrative personnel may be permitted for a specific major administrative, maintenance, rehabilitation, or construction project if that project involves conforming structures or improvements, or the removal of non-conforming structures or improvements, upon the written approval of the Commissioner of Environmental Conservation.
4. Such use of motorized equipment or aircraft will be confined to off-peak seasons for the area in question and normally will be undertaken at periodic intervals of three to five years, unless extraordinary conditions, such as a fire, major blow-down or flood mandate more frequent work or work during peak periods.
5. Irrespective of the above guidelines, use of motorized equipment or aircraft, but not motor vehicles, for a specific major research project conducted by or under the supervision of a state agency will be permitted if such project is for purposes essential to the preservation of wilderness values and resources, no feasible alternative exists for conducting such research on other state or private lands, such use is minimized, and the project has been specifically approved in writing by the Commissioner of Environmental Conservation after consultation with the Agency.
6. Irrespective of the above or any other guidelines in this master plan, use of motor vehicles, motorized equipment and aircraft will be permitted, by or under the supervision of appropriate officials, in cases of sudden, actual and ongoing emergencies involving the protection or preservation of human life or intrinsic resource values -- for example, search and rescue operations, forest fires, or oil spills or similar, large-scale contamination of water bodies.
7. In light of the special circumstances involving Whitney Lake in the West Canada Lake Wilderness Area, seasonal float plane use from spring ice-out to and including June l5 and from October 15 to fall or winter ice-in may be allowed on that lake, by, and subject to permit from the Department of Environmental Conservation for an interim period ending no later than December 31, l993. Such permits shall require annual reporting of all flights and the number of passengers to and from Whitney Lake. During the winter of l988-89 the Department shall determine, from the use trends indicated, whether Whitney Lake should then be closed to float plane use for either or both seasonal periods or whether such use should be allowed to continue until the final deadline of December 31, l993.
8. Written logs will be kept by the Department of Environmental Conservation recording use of motorized vehicles, motorized equipment and aircraft. The Department will prepare an annual report providing details of such motorized uses and the reasons therefor and file it with the Agency.

Roads, snowmobile trails and state truck trails

1. No new roads, snowmobile or state truck trails will be allowed.
2. Existing roads and state truck trails that were to have been closed by the December 31, 1975 deadline but have not yet been removed will be closed by no later than March 3l, l987. Any non-conforming roads, snowmobile trails or state truck trails resulting from newly classified wilderness areas will also be phased out as rapidly as possible and in any case will be closed by the end of the third calendar year following classification. In each case the Department of Environmental Conservation will:
   - -- close such roads and snowmobile trails to motor vehicles as may be open to the public;
   - -- prohibit all administrative use of such roads and trails by motor vehicles; and,
   - -- block such roads and trails by logs, boulders or similar means other than gates.
3. During the phase-out period:
   - -- the use of motorized vehicles by administrative personnel for transportation of materials and personnel will be limited to the minimum required for proper interim administration and the removal of non-conforming uses; and,
   - -- maintenance of such roads and trails will be curtailed and efforts made to encourage revegetation with lower forms of vegetation to permit their conversion to foot trails and, where appropriate, horse trails.

All terrain bicycles

l. Public use of all terrain bicycles will be prohibited.
2. Administrative personnel will not use all terrain bicycles for day-to-day administration but use of such vehicles may be permitted for specific major administrative research, maintenance, rehabilitation or construction projects involving conforming structures or improvements, or the removal of non-conforming structures in the discretion of the Department of Environmental Conservation.

Flora and fauna

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

Recreational use and overuse

1. The following types of recreational use are compatible with wilderness and should be encouraged as long as the degree and intensity of such use does not endanger the wilderness resource itself:
   -- hiking, mountaineering, tenting, hunting, fishing, trapping, snowshoeing, ski touring, birding, nature study, and other forms of primitive and unconfined recreation.
   -- Access by horses, including horse and wagon, while permitted in wilderness, will be strictly controlled and limited to suitable locations and trail conditions to prevent adverse environmental damage.
2. Each individual unit management plan will seek to determine the physical, biological and social carrying capacity of the wilderness resource. Where the degree and intensity of permitted recreational uses threaten the wilderness resource, appropriate administrative and regulatory measures will be taken to limit such use to the capability of the resource. Such administrative and regulatory measures may include, but need not be limited to:
   -- the limitation by permit or other appropriate means of the total number of persons permitted to have access to or remain in a wilderness area or portion thereof during a specified period;
   -- the temporary closure of all or portions of wilderness areas to permit rehabilitative measures.
3. An intensified educational program to improve public understanding of backcountry use, including an anti-litter and pack-in, pack-out campaign, should be undertaken.

Boundary structures and improvements and boundary marking

1. Where a wilderness boundary abuts a public highway, the Department of Environmental Conservation will be permitted, in conformity with a duly adopted unit management plan, to locate within 500 feet from a public highway right-of-way, on a site-specific basis, trailheads, parking areas, fishing and waterway access sites, picnic areas, ranger stations or other facilities for peripheral control of public use, and, in limited instances, snowmobile trails.
2. Where a wilderness boundary abuts a water body accessible to the public by motorboat, the Department of Environmental Conservation will be permitted, in conformity with a duly adopted unit management plan, to provide, on a site-specific basis, for ranger stations or other facilities for peripheral control of public use or for the location of small, unobtrusive docks made of natural materials on such shorelines in limited instances where access to trailheads or the potential for resource degradation may make this desirable.

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

APPENDIX 3 – PRIMITIVE AREAS: GUIDELINES FOR MANAGEMENT AND USE[1]

Basic guidelines

1. The primary primitive management guideline will be to achieve and maintain in each designated primitive area a condition as close to wilderness as possible, so as to perpetuate a natural plant and animal community where man's influence is relatively unapparent.
2. In primitive 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 original December 31, 1975 deadline but have not been removed will be removed by March 31, l987.
   c) Those non-conforming uses of essentially a permanent nature whose removal, though anticipated, cannot be provided for by a fixed deadline will be phased out on a reasonable timetable as soon as their removal becomes feasible.
   (d) Non-conforming uses resulting from newly classified primitive areas will be removed as rapidly as possible, except for those described in c above, and in any case by the end of the third year following classification.
   (e) 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 primitive area.
4. Upon the removal of all nonconforming uses, a designated primitive area that otherwise meets wilderness standards will be reclassified as wilderness.
5. Construction of additional conforming structures and maintenance of existing facilities and improvements will follow the guidelines for wilderness areas.
6. No new structures or improvements in primitive areas will be constructed except in conformity with finally adopted unit management plans. This guideline will not prevent ordinary maintenance rehabilitation or minor relocation of conforming structures or improvements or the removal of nonconforming uses.
7. All conforming structures and improvements will be located so as to blend with the surrounding environment and to require only minimal maintenance.
8. All management and administrative actions and interior facilities in primitive areas will be designed to emphasize the self-sufficiency of the

[1] *From the Adirondack Park State Land Master Plan*

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.

9. Any new, reconstructed or relocated lean-tos or individual primitive tent sites located on shorelines of lakes, ponds, rivers or major streams will be located so as to be reasonably screened from the water body to avoid intruding on the natural character of the shoreline and public enjoyment and use thereof. Any such lean-tos ill be set back a minimum of 100 feet from the mean high water mark of lakes, ponds, rivers or major streams.
10. All pit privies will be located a minimum of 150 feet from the mean high water mark of any lake, pond, river, stream or wetland.

Structures and improvements

1. All structures and improvements that conform to wilderness guidelines will be acceptable in primitive areas.
2. In addition, existing structures and improvements
   (a) whose removal, though anticipated, cannot be provided for by a fixed deadline, or,
   (b) in the case of areas not destined to become wilderness, whose retention is compatible with the character of the area and whose removal is not essential to protect the resource, will also be permissible, in each case as specified in a duly adopted unit management plan.
3. Non-conforming uses, other than those that meet the criteria in section 2 above, will be removed by no later than March 31, l987.

Ranger stations

Ranger stations will be subject to the same guidelines as in wilderness areas, except that in areas not destined to become wilderness or in other special situations the indefinite retention of such stations may be provided for as specified by the Department of Environmental Conservation in a duly adopted unit management plan.

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 primitive areas.
2. Addition, the use of motor vehicles, motorized equipment and aircraft by administrative personnel will be permitted to reach and maintain existing structures, improvements or ranger stations:
   (a) whose eventual removal is anticipated but cannot be removed by a fixed deadline; or,
   (b) in primitive areas not destined to become wilderness whose presence is of an essentially permanent character; in each case as specified in a duly adopted unit management plan.

Roads, snowmobile trails and state truck trails

1. The guidelines specified for wilderness areas will also apply to primitive areas, except that:
   - -- continued use of existing roads, snowmobile trails and state truck trails by administrative personnel will be permitted, to the extent necessary to reach and maintain structures and improvements whose removal, though anticipated, cannot be effected by a fixed deadline or, in the case of primitive areas not destined to become wilderness, whose presence is of an essentially permanent character; and,
   - -- existing roads now legally open to the public may remain open for motor vehicles at the discretion of the Department of Environmental Conservation pending eventual wilderness classification, if their continued use will not adversely affect the character of the resources of the primitive area or impinge upon the proper management of an adjacent wilderness area;
   - -- existing snowmobile trails now legally open to the public may remain open for snowmobiles at the discretion of the Department of Environmental Conservation pending eventual wilderness classification if their continued use will not adversely affect the character or resources of the primitive area or impinge upon the proper management of the adjacent wilderness; in each case as specified in a duly adopted unit management plan.
2. Upon the closure of any road, snowmobile trail or state truck trail, such routes will be effectively blocked as provided in the wilderness guidelines.

All Terrain Bicycles

The same guidelines will apply as in wilderness areas except that all terrain bicycles may be used on existing roads legally open to the public and on state truck trails specifically designated for such use by the Department of Environmental Conservation as specified in individual unit management plans.

Flora and fauna

The same guidelines will apply as in wilderness areas.

Recreational use and overuse

The same guidelines will apply as in wilderness areas.

Boundary structures and improvements and boundary marking

The same guidelines will apply as in wilderness areas.

APPENDIX 4 – PONDED WATER SURVEY DATA

Table 1a. Blue Ridge Wilderness - Ponded Water Inventory Data								
All waters listed below are in Hamilton County.						Area (acres) NYSBSU	Max Depth (feet)	Mean Depth (feet)
Name	**P#**	**Wtr-shed**	**File**	**USGS Quad (7.5')**	**Mgmt. Class**			
Aluminum Pond	P315	R	717	Sargent Ponds	Other	8.2	3.9	2.3
Bear Pond	P303	R	671	Sargent Ponds	Adk. Brook	6.4	16.1	7.5
Brady Pond	P652	UH	1111	Blue	Other	2.7	15	-
Cascade Pond	P644	UH	1102	Blue	Adk. Brook	34.8	23	4.9
Dishrag Pond	P665	UH	1136	Blue	Other	11.1	2	1
Grassy Pond	P650	UH	1109	Blue	Adk. Brook	8.4	3.9	2.6
Home Pond	P884	B	1262	Wakely Mtn.	Unknown	7.2	-	-
Long Pond	P649	UH	1108	Blue	Other	4.5	13	6.6
Lower Mitchell	P646	UH	1105	Blue	Adk. Brook	2.2	16	-
Middle Mitchell	P647	UH	1106	Blue	Other	1	14	-
Potter Pond	P305	R	679	Blue	Other	5.9	14	3.9
Rock Pond	P645	UH	1103	Blue	Warmwater	39.8	10	-
Sagamore Lake	P313	R	712	Sargent Ponds	Coldwater	166.1	75	34.4
Slim Pond	P302	R	669	Sargent Ponds	Adk. Brook	8.2	17	6.6
Slim Pond	P651	UH	1110	Blue	Other	3.2	3	-
Sprague Pond	P662	UH	1130	Blue	Adk. Brook	59.1	23	11.5
Stephens Pond	P643	UH	1100	Blue	Adk. Brook	64.5	22	11
Unnamed Water	P642	UH	1099	Blue	Unknown	1	-	-
Unnamed Water	P648	UH	-	Blue	Unknown	0.5	-	-
Unnamed Water	P5520	UH	-	Blue	Unknown	4.9	-	-
Upper Mitchell	P648	UH	1107	Blue	Other	1	18	-
Wilson Pond	P653	UH	1112	Blue	Adk. Brook	7.7	20	10
				Total acres =		448.4		

Table 1b. Blue Ridge Wilderness - Ponded Water Survey Data

Name	P#	Watershed	Most Recent Chemi-cal Survey (YEAR)	Source	ANC (ueq/l)	pH	Conduc-tivity	Most Recent Biologi-cal Survey (YEAR)	Source	Fish Species Present and Number Caught
Bear Pond	P303	R	1992	DEC	26.7	6.15	22.6	1984	ALSC	ST-2,WS-3,CC-3, NRD-137
Brady Pond	P652	UH	1992	DEC	-4.1	4.92	19.0	1957	DEC	No fish
Cascade Pond	P644	UH	1992	DEC	37	6.52	25.3	1987	ALSC	ST-25,CC-27,BB-6
Dishrag Pond	P665	UH	1992	DEC	33.7	6.22	25.3	1992	DEC	No fish
Grassy Pond	P650	UH	2001	DEC	113	7.1	27.2	2001	DEC	ST-1,NRD-242
Home Pond	P884	B	-	-	-	-	-	-		Unknown
Long Pond	P649	U	1987	ALSC	-24	4.56	23.5	1987	ALSC	No fish
Lower Mitchell Pond	P646	UH	1992	DEC	-9.3	4.76	22.4	1992	DEC	ST-12
Middle Mitchell Pond	P647	UH	1992	DEC	-17	4.65	22.2	1992	DEC	No fish
Potter Pond	P305	R	1984	ALSC	-5.4	4.92	25	1984	ALSC	No fish
Rock Pond	P645	UH	1959	DEC	-	6.1	-	1959	DEC	ST-1,BB-12,YP-2,PKS-17,WS-5; LMB, TGRM stocked
Sagamore Lake	P313	R	1986	ALSC	28.4	6.07	25.8	1986	ALSC	ST-17,LT-27,LNS-12,WS-65,YP-47,LWF-1,CC-1-,BB-9
Slim Pond	P302	R	1984	ALSC	41.3	6.56	17.7	1992	DEC	ST-2,GS-131;BT stocked since 1998
Slim Pond	P651	UH	1992	DEC	31.2	5.98	17.2	1992	DEC	GS-123
Sprague Pond	P662	UH	2003	DEC	136	7.28	28.8	2003	DEC	PKS-14, GS-13, CC-3, BND-2, (BT stkd)
Stephens Pond	P643	UH	1999	DEC	111	7.31	23.4	1999	DEC	BT-14,ST-8,WS-38,BB-3
Unnamed Water	P5520	UH	-	-	-	-	-	-	-	Unknown
Unnamed Water	P642	UH	-	-	-	-	-	-	-	Unknown
Unnamed Water	P648A	UH	-	-	-	-	-	-	-	Unknown
Upper Mitchell Pond	P648	UH	1992	DEC	-51	4.3	28.4	1992	DEC	No fish
Wilson Pond	P653	UH	1992	DEC	36.7	6.55	22	1992	DEC	ST-5,GS-248

Species Abbreviations

BB= Brown bullhead	LNS=Longnose sucker	TGRM=Tiger musky
BT=Brown trout	LT=Lake trout	WS=White sucker
CC=Creek Chub	LWF=Lake whitefish	YP=Yellow perch
CS=Common shiner	NRD=Northern redbelly dace	Unknown = No biological survey
GS=Golden shiner	PKS=Pumpkinseed	
LMB=Largemouth bass	ST=Brook trout	No fish = No fish captured during survey

Table 1c. Fish Community Ecological Analysis

Blue Ridge Wilderness

Early Surveys vs. Present Day Fish Distribution

					Net*	%Net Change
Lake Category	#Lakes Pre-1965	% Fish Communities	# Lakes Post-1965	% Fish Communities	Change # Lakes	For Species
GENERAL						
Total # Lakes	22					
# Unknown	7	32%	4	18%	-3	
# Surveyed	15	68%	18	82%	3	
# Fishless	5	23%	7	32%	2	
# Fish Communities	10	45%	11	50%	1	
BROOK TROUT						
# Sustained by Natural Reproduction	9	90%	1	9%	-8	-89%
#Sustained by Stocking	1	10%	8	73%	7	700%
NATIVE BUT WIDELY INTRODUCED						
# Lake Trout **	1	10%	1	9%	0	0%
# Brown Bullhead	5	50%	5	45%	0	0%
# Pumpkinseed	4	40%	3	27%	-1	-25%
# Creek Chub	2	20%	5	45%	3	150%
NATIVE						
# White Sucker	5	50%	3	27%	-2	-40%
# Lake Chub **	1	10%	1	9%	0	0%
# Blacknose Dace	2	20%	1	9%	-1	-50%
# Northern Redbelly Dace	1	10%	2	18%	1	100%
# Common Shiner*	1	10%	1	9%	0	0%
#Redbreast Sunfish	1	10%	0	0%	-1	-100%
#Longnose Sucker **	1	10%	1	9%	0	0%
#Cutlips Minnow***	0	0%	1	9%	1	100%
#Blacknose shiner	2	20%	1	9%	-1	-50%
NONNATIVE						
# Yellow Perch	2	20%	2	18%	0	0%
# Golden Shiner	1	10%	5	45%	4	400%
# Smallmouth Bass **	1	10%	1	9%	0	0%
#Lake Whitefish **	1	10%	1	9%	0	0%
#Brown Trout	0	0%	3	27%	3	300%
#Largemouth Bass***	0	0%	1	9%	1	100%
#Tiger Musky***	0	0%	1	9%	1	100%
#Pearl Dace	0	0%	1	9%	1	100%

* Shaded areas indicate negative numbers

** Status of this fish species depends upon resurveying Sagamore Lake

*** Status of this fish species depends upon resurveying Rock Pond

Aluminum Pond (R-P 315)

Aluminum Pond is a shallow, acidified 8-acre pond that is currently devoid of fish life. It is quite remote, lying 4.5 miles from Cedar River Road. No trail leads to this pond. It is located to the east of Squirrel Top and is a headwater of Sagamore Lake's tributary system. A 1984 ALSC survey caught no fish and reported a pH of 4.7 and an ANC of -12 µeq/liter. Aluminum Pond's maximum depth is four feet with a mean depth near two feet and a flushing rate of 86 times/y
ear. Aluminum Pond was not netted prior to 1984, but a file note on a 1933 Biological Survey form mentions that brook trout were stocked in the past with fair fishing success. ALSC stocking records indicate brook trout fingerlings were stocked from 1957-1963, but Department records do not mention why the policy was canceled. In the 1933 survey, the pond was described as having black, foul smelling water. ALSC biologists noted salamanders were present and found signs of recent beaver activity.

Aluminum Pond will be managed to preserve its aquatic community for its intrinsic value. The pond's high flushing rate disqualifies it for liming under FEIS criteria.

Management Class: Other

Bear Pond (R-P 303)

Bear Pond is a 6-acre Adirondack brook trout pond located about 1.7 miles southwest of Utowana Lake. The first survey of Bear Pond occurred in 1955. A single, large brook trout was caught, but biologists noted earlier reports of good brook trout fishing. A 1984 ALSC survey found a native fish community consisting of brook trout, white sucker, creek chub and northern redbelly dace. The brook trout population is dependent on stocking which occurred as early as 1934 and annually since 1956. Bear Pond has a maximum depth of 16 feet, mean depth of 7.5 feet, flushing rate of 4.4 times/year, pH of 6.15 and an ANC of 27 µeq/liter. Muck and organic material dominate its substrate. Department fisheries personnel inspected the pond in 1992 and determined that it is unsuitable for reclamation due to lack of a barrier site and a large boggy area downstream of the outlet. ALSC maps indicate a trail leads to Bear Pond, but recent topographic maps do not show the path.

Bear Pond will be managed as an Adirondack brook trout pond to preserve its native fishes.

Management Class: Adirondack Brook Trout

Brady Pond (UH-P 652)

Brady Pond is a 3-acre acidic, fishless bog pond. Biological survey field crews bypassed the pond in 1932, but noted that it had never been stocked. Brady Pond is isolated, lying about a mile west of the trail leading to Cascade Pond. No fish were captured in a 1957

survey. Brady Pond has a maximum depth of 15 feet and a muck bottom. A 1992 chemistry survey found a pH of 4.9, an ANC of -4 μeq/liter, and no dissolved oxygen below five feet in depth. A large bog surrounds the pond. No marked trails lead to this water body.

Brady Pond will be managed to preserve its aquatic community for its intrinsic value.

Management Class: Other

Cascade Pond (UH-P 644)

Cascade Pond is a scenic 35-acre Adirondack brook trout pond. A 2.5 mile trail (that also climbs about 500 feet) starting at the west end of Lake Durant provides access. When first studied in 1931, brook trout were noted as being abundant and were the only species captured. A 1959 survey caught brook trout and brown bullhead (NBWI). Creek chub, another NBWI species, were added to the fish fauna list after a 1973 survey. A 1984 ALSC netting added no new species. Cascade Pond has a pH of 6.5, maximum depth of 23 feet, mean depth of 5 feet and a flushing rate of 23 times/year. Water chemistry work done in 1992 found a pH of 6.5 and an ANC of 37 μeq/liter. A long inlet stream with numerous small bogs, tributaries and beaver dams makes Cascade Pond unsuitable for reclamation. Natural barriers probably exist on the pond's outlet, which eventually drains to Lake Durant. Cascade Pond is probably the most heavily fished brook trout pond in the Blue Ridge Wilderness. Its trout population is dependent upon stocking, which has occurred annually since 1942. About half of the inshore habitat is stony with other areas of sand, muck and silt. There is a lean-to on the pond's north shore.

Cascade Pond will be managed as an Adirondack brook trout pond to preserve its native fishes.

Management Class: Adirondack Brook Trout

Dishrag Pond (UH-P 665)

Dishrag Pond is a very remote, fishless pond about 11 acres in size. Prior to a 1992 Department effort, this pond had never been surveyed. Although chemical conditions were suitable for fish life (pH 6.22 and ANC of 34 μeq/liter), no fish were netted or observed. Dishrag Pond is exceptionally shallow with a mean depth less than one foot and maximum depth of two feet. It is likely that winter kill conditions occur in the pond frequently. Wetlands completely surround Dishrag Pond and aquatic vegetation is abundant. This pond is the headwater to Brown Brook and is located about 3.5 miles from Cedar River Road in the heart of the wilderness. No doubt there is an interesting story behind this pond's unique name, but the account is not recorded in Fisheries' files.

Dishrag Pond will be managed to preserve its aquatic community for its intrinsic value.

Management Class: Other

Grassy Pond (UH-P 650)

Grassy Pond (eight acres) is an Adirondack brook trout pond with the unusual combination of slightly alkaline water chemistry and a narrow fringe of bog shoreline. It is located about 0.5 miles south of Route 28 and Eagle Lake. The 1932 biological survey of Grassy Pond captured brown bullhead, white sucker, northern redbelly dace, pumpkinseed and blacknose shiner. Minnows were noted to be abundant. A 1987 ALSC study captured only brown bullhead and creek chub (both NBWI). Grassy Pond has a pH of 7.2, ANC of 113 µeq/liter, maximum depth of 4 feet, mean depth of 3 feet and a flushing rate of 6.4 times/year. Brook trout stocking was initiated in 1994. Netting done in 2001 captured brook trout and northern redbelly dace. Grassy Pond has no inlets or outlets. Wetlands associated with the pond are small and can probably be treated effectively with rotenone.

Grassy Pond will be managed as an Adirondack brook trout pond. Reclamation does not appear necessary within the five year scope of this plan, but this pond will be reclaimed upon establishment of additional fish(es) to enhance and restore a native fish community. When a reclamation is determined to be necessary, the UMP will be amended to include it within the Schedule for Implementation. Prior to a reclamation , Grassy Pond should be netted and seined to establish whether blacknose shiner are still present. If they are, consideration should be given to restocking after the reclamation to avoid extirpating this species within the unit. Restocking plans are dependent upon further research/review on whether this species is native to the Adirondacks and whether a suitable regional source for the species can be found (see Section II - Natural Resources - Biological - Fisheries).

Management Class: Adirondack Brook Trout

Home Pond (B-P 884)

Home Pond (seven acres) is one of the few named waters in the Adirondacks which has never been netted. Department fisheries personnel visited the pond in 1954 and 1992 and found it to be weed choked, small and warm with no management potential. Extensive wetlands occur in the watershed. No trails lead to this remote pond which lies about 0.5 mile east of the private, Lake Kora in-holding. Chemical and physical data for Home Pond have never been collected.

Home Pond will be managed to preserve the fish species present for their intrinsic value.

Management Class: Unknown

Long Pond (UH-P 649)

Long Pond is a 5-acre, acidic, fishless pond located about 0.25 mile from Route 28 near Eagle Lake. Sphagnum bog occupies 60 percent of the shoreline and the pond bottom is composed entirely of muck and organic matter. Surveys conducted in 1932 and 1987 captured no fish. The 1987 ALSC survey measured a pH of 4.6, ANC of -24 µeq/liter,

mean depth of seven feet, maximum depth of 13 feet and a flushing rate of six times/year. A short trail from Route 28 provides access.

Long Pond will be managed to preserve its aquatic community for its intrinsic value. This pond's high flushing rate and extensive bog shoreline disqualify it for liming under FEIS criteria.

Management Class: Other

Lower Mitchell Pond (UH-P 646)

Lower Mitchell Pond is a 2-acre Adirondack brook trout pond located 0.4 mile west of Cascade Pond (UH-P644). Lower Mitchell Pond is the only pond in the Mitchell chain to harbor fish life. A 1992 Department survey captured 12 brook trout (some with fin clips) in this acidic, boggy pond. The only previous survey, conducted in 1957, captured no fish. The trout in Lower Mitchell Pond are probably present due to stocking error or to the efforts of private individuals. Lower Mitchell has a pH of 4.8, a maximum depth of 16 feet, and a dark brown water color. A flushing rate has not been determined for Lower Mitchell Pond. About 80 percent of the shoreline has bog vegetation. Unlike most bog ponds, dissolved oxygen levels in Lower Mitchell Pond are adequate for trout even at 16 feet and pH conditions improve in the deeper water. A barrier dam could be built on the outlet of Lower Mitchell Pond, but is unnecessary due to adequate natural barriers further down the stream. The tributaries of the Mitchell Pond chain are also known to go dry in the summer months.

Lower Mitchell Pond will be managed as an Adirondack brook trout pond to enhance and restore its native fishes. Reclamation does not appear necessary within the five year scope of this plan. However, if additional fishes establish to the detriment of the brook trout population and a reclamation is determined to be necessary, the UMP will be amended to include it in the Schedule for Implementation. Lower Mitchell Pond does not meet Liming FEIS criteria.

Management Class: Adirondack Brook Trout

Middle Mitchell Pond (UH-P 647)

Middle Mitchell Pond is a 1-acre, acidic bog pond located just to the west of Lower Mitchell Pond and about 0.5 mile west of Cascade Pond. No fish were captured in 1957 or 1992 surveys of the pond. Middle Mitchell Pond's entire shoreline is composed of bog vegetation. The pond has a pH of 4.7, ANC of -17 μeq/liter, and a maximum depth of 14 feet. Unlike Lower Mitchell Pond, Middle Mitchell Pond has poor dissolved oxygen and pH conditions in its deeper waters. No marked trails lead to this small pond.

Middle Mitchell Pond will be managed to preserve its aquatic community for its intrinsic value. Middle Mitchell Pond does not meet Liming FEIS criteria.

Management Class: Other

Potter Pond R- P 305)

Potter Pond is an isolated, fishless 6-acre pond located about 1.25 miles south of Route 28 where it borders Utowana Lake. Most of Potter Pond is shallow, but it has one deep hole that drops to 14 feet. A 1984 ALSC survey caught no fish and measured a pH of 4.9 with an ANC of -5 µeq/liter. Mean depth of Potter Pond is 4 feet and its flushing rate is 11.4 times/year. Potter Pond has clear water typical of "manmade" acidified ponds. No thermocline was present during August 1984 sampling and water temperatures were over 70 F at 14 feet. ALSC biologists noted poor fish habitat. Potter Pond was never stocked nor was it surveyed before 1984.

Potter Pond will be managed to preserve its aquatic habitats. The pond's high flushing rate disqualifies it for liming under FEIS criteria.

Management Class: Other

Rock Pond (UH-P 645)

Rock Pond is a 40-acre warmwater lake that is contiguous with Lake Durant and borders the northern end of the of the wilderness. The 1932 biological survey sampled a native fish community consisting of white sucker, brown bullhead and pumpkinseed in Rock Pond and reported that brook trout were present. Brook trout were stocked from 1942-1954. The last survey of Rock Pond occurred in 1959, resulting in nonnative yellow perch being added to the species list. A single brook trout was also netted. Largemouth bass and tiger musky are probably present in Rock Pond because both species have been stocked in Lake Durant in the past. Any brook trout present are likely emigrants from the pond's extensive tributary system. Rock Pond has a pH of 6.1 and a maximum depth of 10 feet. The channel connecting Rock Pond and Lake Durant is spanned by a footbridge for the trail leading to Cascade Pond.

Rock Pond will be managed as a warmwater pond to preserve its native fishes in the presence of nonnative and historically associated species. A netting survey of Rock Pond will be conducted within the five year scope of this plan to update inventory data regarding its fish community.

Management Class: Warmwater

Sagamore Lake (R-P 313)

Sagamore Lake (formerly known as Shedd Lake) is a 166-acre coldwater lake that was privately-owned for many years. The Sagamore Lodge, a famous Adirondack great camp, is still privately-owned and operated along the lake's shore. Most of the lake's shoreline became State-owned in late 1975. Sagamore Lake is accessible by a 3.5 mile road heading south from the village of Raquette Lake off Route 28. Lake trout, brook trout, lake whitefish and smallmouth bass have been privately stocked historically. The biological survey of 1933 established that lake trout, brook trout, longnose sucker, white sucker, common shiner, creek chub (NBWI), lake chub, pumpkinseed and smallmouth bass (nonnative) were present. A 1961 survey captured the same species with the addition of the nonnative yellow perch. Uncoincidentally, the 1961 survey was prompted by reports from the private owners of a declining brook trout fishery. This decline in the trout fishery was undoubtedly due to competition/predation from yellow perch. A 1976 survey caught all the same species and confirmed that lake whitefish were still present in the lake. The ALSC revisited the lake in 1984, but caught no new fish species. Lake trout and brook trout are NSA in Sagamore Lake, but cannot be regarded as heritage strains due to past private stocking. Brook trout persist due to the lake's extensive tributary system. The stocking of landlocked Atlantic salmon in Sagamore Lake is under consideration. This species is historically associated with Adirondack fisheries and has done well in neighboring Blue Mountain Lake and Raquette Lake. Physical/chemical features for the lake are: pH of 6.1, ANC of 28 μeq/liter, maximum depth of 75 feet, mean depth of 34 feet and a flushing rate of 5.1 times/year. Sagamore Lake is one of ALSC's long term monitoring lakes and has been included in several other research projects. About half the inshore habitat is rocky with sand dominating in some sections. A nice beach is located on the eastern end of the lake. The two wheel drive road to the lodge skirts part of the lake's shoreline near the outlet. Car top boat access is possible, but parking space is limited and current signage leaves anglers unsure of access.

Sagamore Lake will be managed as a coldwater pond to preserve its native fishes in the presence of nonnative and historically associated species. Signed parking spots will be developed along the road for anglers and other users of this scenic pond. The outlet of Sagamore Lake, South Creek, is a good brook trout stream. A comprehensive management survey of Sagamore Lake will be conducted within the five year scope of this plan to assess the status of its native species and make decisions regarding possible/necessary stocking efforts.

Management Class: Coldwater

Slim Pond (R-P 302)

There are two Slim ponds in the Blue Ridge Wilderness, one in the Raquette watershed and one in the Upper Hudson. Slim Pond in the Raquette watershed is an 8-acre Adirondack brook trout pond. A 1955 survey reported unidentified minnow species in Slim Pond which led to a reclamation effort in 1969. The reclamation failed, however, as minnows were reported again in 1970. Despite this, brook trout fishing was reported as

good in 1975. In 1984, the ALSC captured a few large brook trout and found an abundant golden shiner (nonnative) population. A 1992 prereclamation survey determined that the pond is a good reclamation candidate with a barrier dam site available on the outlet. Brown trout stocking was instituted in 1998 to supplement the brook trout fishery and, perhaps, effect some control on the golden shiner population. Slim Pond's pH is 6.6, ANC is 41 μeq/liter, maximum depth is 17 feet, mean depth is seven feet and the flushing rate is 2.9 times/year. P302 is the headwater of a tributary to Bear Creek. ALSC maps indicate a trail leads to this pond which lies 1.5 miles south of Route 28.

Data regarding water chemistry and the presence of nonnative fish have not been collected since 1992. However, any changes likely to have occurred since 1992 would not have eliminated the need for a pond reclamation. When nonnative fishes become established in Adirondack ponds, and brook trout populations decline, the situation does not reverse itself naturally. The nonnative fishes present in 1992 would not have disappeared; if anything, additional nonnative fishes may have become established, increasing the severity of impacts to the native fishes. Over the last couple of decades, the water chemistry of Adirondack ponds has been trending toward stable or improved pH. A pH of 6.6, the condition of Slim Pond in 1992, is well within the range that supports fish life. Stable or improving pH values since 1992 would not have negatively affected the fish species present. In the unlikely event that Slim Pond has not followed regional trends, even a significant decline in pH to 6.0 would not be expected to eliminate fish species from the pond.

The Department will consult with Agency staff during the wetlands permit application process to determine whether the additional collection of biological and/or water chemistry data will be necessary.

Slim Pond (R-P302) will be reclaimed and managed as an Adirondack brook trout pond to enhance and restore a native fish community. A barrier dam will be constructed on the outlet to help prevent reinfestation by golden shiner. A heritage strain of brook trout will be stocked after the pond is reclaimed and brown trout stocking will be terminated unless nonnative species reestablish.

Management: Adirondack Brook Trout

Slim Pond (UH-P 651)

The "other" Slim Pond in the Blue Ridge Wilderness is a 3-acre warm and shallow water body. It lies in the course of the tributary system which eventually drains into Rock Pond and Lake Durant. The only netting ever done on Slim Pond P651 was by the Department in 1992 and the only fish species collected was nonnative golden shiner. Field staff also commented on the impressive number of leeches observed. Slim Pond has a pH of 6, ANC of 31 μeq/liter and a maximum depth of 4 feet. Extensive wetlands upstream and downstream of the pond, plus lack of a barrier site, preclude reclamation. P651 has very dark water with no evidence of a thermocline when it was studied in July 1992. Warm, midsummer water temperatures probably prevent brook trout from establishing in Slim

Pond. Since Wilson Pond (UH-P653) is an Adirondack brook trout pond and there is no effective barrier between these waters, largemouth bass should not be stocked into Slim Pond. The trail system leading to Wilson Pond from Route 28 provides access

Slim Pond (UH-P651) will be managed to preserve its aquatic community for its intrinsic value.

Management Class: Other

Sprague Pond (UH-P 662)

Sprague Pond is a 59-acre Adirondack brook trout pond located about 0.25 mile from Cedar River Road. A fishermen's parking area and easy trail hiking provide the best access of any pond in the unit. Consequently, Sprague Pond may be the most heavily fished pond in the BRW. Sprague Pond was first surveyed in 1932. Biologists reported catching brook trout, white sucker, brown bullhead (NBWI), pumpkinseed (NBWI), blacknose dace and blacknose shiner. Staff surveying the pond in 1969 captured brook trout, brown bullhead and white sucker and observed pumpkinseed, creek chub (NBWI) and nonnative golden shiner. It is likely that the establishment of golden shiner negatively impacted the brook trout population and eliminated blacknose shiners. Declines in brook trout fishing success prompted a reclamation effort in 1971. Post-reclamation netting efforts in 1972 and 1975 indicated that pumpkinseed survived the reclamation and were present in large numbers while brook trout growth was slow. A shift to brown trout stocking was done in 1972 and this species revived the fishery. A 1992 survey captured brown trout, pumpkinseed and golden shiner. A 2003 netting survey focused on minnow species caught blacknose dace, creek chub, golden shiner and pumpkinseed. Field crews ascertained that reclamation of Sprague Pond would be possible, although difficult due to a long tributary system. The barrier dam on the outlet of Sprague Pond was reconstructed in 1994, but has had to be repaired for small leaks several times since. Sprague Pond has the highest pH (7.3) of any pond in the BRW with an ANC of 136 μeq/liter. Maximum depth of the pond is 23 feet and mean depth is 11.5 feet. Submerged aquatic vegetation is moderately abundant in this productive pond. Littoral zone substrate types range from muck to bedrock.

Sprague Pond will be reclaimed and managed as an Adirondack brook trout pond to enhance and restore a native fish community. Reclamation plans, however, depend upon solving the persistent leakage problems in the barrier dam. Sprague Pond's long tributary system may require dry watershed conditions to treat effectively. Consideration should be given to reintroducing blacknose shiner to Sprague Pond if it can be reclaimed.

Management Class: Adirondack Brook Trout

Stephens Pond (UH-P 643)

Stephens Pond is a 65-acre coldwater pond located just off the Northville- Placid trail about 2 miles south of the Lake Durant campground. Brook trout were abundant in the

first survey conducted on this pond in 1932. Also present were redbreast sunfish and creek chub (NBWI). Brook trout stocking was instituted in 1942 for reasons undocumented in Fisheries files. A 1959 survey added white sucker, golden shiner (nonnative) and brown bullhead (NBWI) to the species list. A 1973 effort caught the same species along with one lake trout - probably a stocking error. A Department fisheries crew netted Stephens Pond in 1992 and added pumpkinseed, northern redbelly dace and pearl dace to the fish community list. Minnow species were abundant and no large brook trout were caught in 1992. To enhance the trout fishery, a split policy of brook trout and brown trout was initiated in 1993. This policy was evaluated in 1999 resulting in capture of both trout species in good numbers, white sucker and brown bullhead. The pond has good water chemistry with a pH of 7.3 and ANC of 111 μeq/liter. Maximum depth is 22 feet, mean depth is 11 feet. Stephens Pond is a poor reclamation candidate due to extensive downstream wetlands and a broad outlet with no barrier site. Stephens Pond is a popular angling destination in the BRW and is one of the area's few ponds with a lean-to on its shoreline.

Stephens Pond will be managed as a coldwater pond to preserve its native fishes in the presence of historically associated and nonnative species.

Management Class: Coldwater

Unnamed Pond (UH-P 5520)

Unnamed Pond (UH-P5520) is five acres in size and has never been surveyed. This pond is likely a beaver impoundment. It is located on the outlet of Stephens Pond about 0.8 mile downstream. No marked trails lead to this pond which probably has a fish community similar to Stephens Pond.

Unnamed pond (UH-P5520) will be managed to preserve any fish species present for their intrinsic value.

Management Class: Unknown

Unnamed Pond (UH-P 642)

Never surveyed, this 1-acre pond is located at the head of tributary 1 of tributary 16 of Lake Durant. No trail leads to this small pond lying in the midst of a large wetland.

Unnamed pond (UH-P642) will be managed to preserve any fish species present for their intrinsic value.

Management Class: Unknown

Unnamed Pond (UH-P 648A)

A 0.5-acre pond that has never been surveyed. This remote pond is located 0.5 mile south of Upper Mitchell Pond. No marked trails lead to this isolated pond.

Unnamed pond (UH-P648A) will be managed to preserve any fish species present for their intrinsic value.

Management Class: Unknown

Upper Mitchell Pond (UH-P 648)

Upper Mitchell Pond is virtually identical to Middle Mitchell Pond in terms of size and aquatic habitat. It has the lowest pH of any pond in the Blue Ridge Wilderness at 4.3 with an ANC of -51 µeq/liter. Maximum depth is 18 feet and wetlands surround the shore. No fish were captured in 1957 or 1992 surveys. Upper Mitchell Pond is located about 0.5 mile southwest of Middle Mitchell Pond and 1.2 miles from Cascade Pond. No marked trails lead to this small, dark water, bog pond.

Upper Mitchell Pond will be managed to preserve its aquatic community for its intrinsic value. This pond does not meet Liming FEIS criteria due to the amount of sphagnum along its shore.

Management Class: Other

Wilson Pond (UH- P 653)

Wilson Pond is an 8-acre Adirondack brook trout pond located upstream of Slim Pond (UH-P651) and is a headwater of Rock Pond (UH-P645). When first studied in 1957, Wilson Pond was a brook trout monoculture. A 1992 Department survey captured far fewer brook trout and noted an abundant golden shiner (nonnative) population. Wilson Pond has a pH of 6.55, ANC of 37 µeq/liter, mean depth of 10 feet and a maximum depth of 20 feet. Field notes of the 1992 survey indicate that the pond is a poor reclamation candidate. Wetlands would be difficult to treat and there is no adequate barrier dam site. A lean-to exists on Wilson Pond at the end of a 3.0 mile trail from Route 28.

Wilson Pond will be managed as an Adirondack brook trout pond to preserve its native fishes in the presence of nonnative and historically associated species. Brown trout stocking may be initiated in an effort to reduce competition from golden shiner and to enhance the overall trout fishery (a technique which has worked in Stephens Pond).

Management Class: Adirondack Brook Trout

Note: For purposes of this plan, only waters officially recognized (those with P numbers) by the Department's Biological Survey Unit are included in the above narratives. The Blue Ridge Wilderness also contains a number of small wetland ponds with beaver dams on their outlets. In some years these pond/wetland complexes may be nearly dry, while during wet years or during years when the beaver are active they may contain small impoundments. These pond/wetland complexes will be managed to preserve and protect

the existing fish communities for their intrinsic value. Many of these ponds can be accessed by unofficial "herd paths".

Classification of Common Adirondack Upland Fish Fauna Into Native, Nonnative, and Native But Widely Introduced[1]

Native To Adirondack Upland		
blacknose dace	redbreast sunfish	slimy sculpin
white sucker	finescale dace	lake chub
longnose sucker	creek chubsucker	common shiner
northern redbelly dace	longnose dace	round whitefish
Native Species Widely Introduced within the Adirondack Upland[2]		
brook trout	pumpkinseed	lake trout
brown bullhead	cisco	creek chub
Nonnative to Adirondack Upland		
golden shiner	northern pike	Atlantic salmon
chain pickerel	rock bass	walleye
largemouth bass	bluntnose minnow[3]	central mudminnow
brown trout	pearl dace	redhorse suckers (spp.)
Splake	smallmouth bass	black crappie
lake whitefish	yellow perch	fallfish[4]
rainbow smelt	fathead minnow[5]	banded killifish[6]
bluegill	rainbow trout	Johnny darter

[1] *Adapted from George, 1980*

[2] *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.*

[3] *Not mentioned by Mather (1884) from Adirondack collections, widely used as bait.*

[4] *Adventive through stocking.*

[5] *Not mentioned by Mather (1884) from Adirondack collections, minor element southern Adirondack Uplands (Greeley 1930-1935).*

[6] *Early collections strongly suggest dispersal as a bait form.*

APPENDIX 7 – FISHERY MANAGEMENT IN WILDERNESS, PRIMITIVE AND CANOE AREAS

MEMORANDUM

TO: Executive Staff, Division and Regional Directors

FROM: Thomas C. Jorling

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

BACKGROUND

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

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

For more than a decade, the Division of Fish and Wildlife has managed ecosystems consistent with legal mandates and professional concerns, with sensitivity for wilderness values and with the intent of providing unique recreational experiences. The Master Plans set no numerical standards on use intensity but indicate that fishing is "compatible with wilderness and should be encouraged as long as the degree and intensity of use does not endanger the wilderness resource itself".

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

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

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

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

The evolution of fisheries management in New York State and the Adirondack zone has been discussed in Shepherd et al. (1980) and Pfeiffer (1979). Program goals, objectives, policies and management strategies for lake trout including guidelines for stocking were developed by Plosila (1977). The strategic plan recognizes the importance of native Adirondack lake trout stocks and the considerable importance of these lake trout resources to the entire State. In 1979, a strategic plan for the management of wild and hybrid strains of brook trout was completed (Keller 1979). Preservation of native strains in the Adirondack and Catskill Mountains was a major component of that plan. Pfeiffer (1979) established goals, objectives and strategies for the management of broad classes of Adirondack fishery resources and significantly enunciated the importance of angling in wilderness, primitive and canoe areas and guidelines for fisheries management within these areas. The latter were consistent with those formulated earlier by Doig (1977). The

philosophical and scientific underpinnings for trout stream management in New York with application to management of wilderness, primitive and canoe area trout streams, was completed in 1979 (Engstrom-Heg 1979 a). A recent draft plan for intensification of management of brook trout in 47 Adirondack ponds has been developed by DEC Regions 5 and 6 (Miller, 1986).

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

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

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

PURPOSE

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

POLICY GUIDELINES

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

1. The primary purpose of aquatic resource management in wilderness primitive and canoe areas is to perpetuate natural aquatic ecosystems, including perpetuation of indigenous fish species on a self-sustaining basis.

2. Angling is recognized as a compatible recreational pursuit in wilderness, primitive and canoe areas. Aquatic resource management will emphasize the quality of the angling experience over quantity of use.

3. Aquatic resources in wilderness, primitive and canoe areas will be protected and managed so as to preserve, enhance and restore, where necessary, their natural conditions. Aquatic resource management, including stocking of game and nongame fishes and pond reclamation, may be necessary to achieve and perpetuate natural aquatic ecosystems.

4. Brown trout, rainbow trout, splake and landlocked Atlantic salmon are coldwater fish species historically associated with the Adirondack Park. Smallmouth bass, largemouth bass, northern pike and walleye are warmwater species historically associated with the entire Adirondack and Catskill Parks and indigenous to some lowland areas. These species may be included in the management and stocking regime of specific waters in wilderness, primitive, and canoe areas in instances when indigenous fish communities cannot be protected, maintained, or restored in those waters. Fish species, other than indigenous species and species historically associated with the Adirondack and Catskill Parks, will not be stocked in the waters of wilderness, primitive and canoe areas.

5. Waters found to be naturally barren of fish species will not be stocked. Waters which are self-sustaining or which otherwise would be self-sustaining except that they have been compromised by human-caused disturbances may be stocked consistent with these guidelines.

6. Pond reclamation will be practiced as appropriate to prepare or maintain waters in wilderness, primitive and canoe areas but only for the restoration or perpetuation of indigenous fish communities.

7. The Unit Management Plan for each wilderness, primitive, or canoe area shall identify aquatic resource management actions on a water-body-specific basis through analysis of unit inventory data adequate to support the actions.

8. In those instances where a Unit Management Plan has not yet been approved for a given wilderness, primitive, or canoe area, aquatic resource management actions to stock waters may be continued in waters so managed before December 31, 1989, consistent with these guidelines, pending approval of the Plan. Waters reclaimed prior to December 31, 1989 may be reclaimed subject to case-by-case review by the Adirondack Park Agency for consistency with these guidelines, pending approval of the Plan. New waters may be stocked or reclaimed only to prevent significant resource degradation subject to case-by-case review by the Adirondack Park Agency for consistency with these guidelines, pending approval of the Plan.

9. Liming to protect and maintain indigenous fish species may be continued as a mitigation measure for acid rain in Horn Lake (P04854) and Tamarack Pond

(P06171). As UMP's are completed, new waters may be limed in accordance with the provisions of the Division of Fish and Wildlife Liming Policy presented on pages 2-7 of the Final GEIS on the NYS Department of Environmental Conservation Program of Liming Selected Acidified Waters. As provided in the Liming Policy, no naturally acidic waters or bog waters will be limed. All limed waters will be relimed in accordance with the provisions of the Liming Policy. Any water that must be relimed more than three times in ten years, except for original sources of heritage strains, will be allowed to reacidify.

10. All aquatic resource management activities in wilderness, primitive, and canoe areas will be consistent with guidelines for use of motor vehicles, motorized equipment, and aircraft as stated in the State Land Master Plan.

APPENDIX 8 – BIRDS

Table 1. Bird Species Documented in Atlas Blocks Within, or Partially Within, the Blue Ridge Wilderness and Wakely Mountain Primitive Area During the New York State Breeding Bird Atlas Project, 1980 -1985.

Common Name	Scientific Name	Status
Alder Flycatcher	*Empidonax alnorum*	Protected
American Bittern	*Botaurus lentiginosus*	Protected-Special Concern
American Black Duck	*Anas rubripes*	Game Species
American Crow	*Corvus brachyrhynchos*	Game Species
American Goldfinch	*Carduelis tristis*	Protected
American Redstart	*Setophaga ruticilla*	Protected
American Robin	*Turdus migratorius*	Protected
American Woodcock	*Scolopax minor*	Game Species
Baltimore Oriole	*Icterus galbula*	Protected
Barn Swallow	*Hirundo rustica*	Protected
Barred Owl	*Strix varia*	Protected
Bay-breasted Warbler	*Dendroica castanea*	Protected
Belted Kingfisher	*Ceryle alcyon*	Protected
Bicknell's Thrush	*Catharus bicknelli*	Protected-Special Concern
Black-and-white Warbler	*Mniotilta varia*	Protected
Black-backed Woodpecker	*Picoides arcticus*	Protected
Black-billed Cuckoo	*Coccyzus erythropthalmus*	Protected
Blackburnian Warbler	*Dendroica fusca*	Protected
Black-capped Chickadee	*Poecile atricapillus*	Protected
Blackpoll Warbler	*Dendroica striata*	Protected
Black-throated Blue Warbler	*Dendroica caerulescens*	Protected
Black-throated Green Warbler	*Dendroica virens*	Protected
Blue Jay	*Cyanocitta cristata*	Protected
Blue-headed Vireo	*Vireo solitarius*	Protected
Bobolink	*Dolichonyx oryzivorus*	Protected
Boreal Chickadee	*Poecile hudsonicus*	Protected
Broad-winged Hawk	*Buteo platypterus*	Protected
Brown Creeper	*Certhia americana*	Protected
Brown Thrasher	*Toxostoma rufum*	Protected
Brown-headed Cowbird	*Molothrus ater*	Protected
Canada Goose	*Branta canadensis*	Game Species
Canada Warbler	*Wilsonia canadensis*	Protected
Cape May Warbler	*Dendroica tigrina*	Protected
Cedar Waxwing	*Bombycilla cedrorum*	Protected
Chestnut-sided Warbler	*Dendroica pensylvanica*	Protected
Chimney Swift	*Chaetura pelagica*	Protected
Chipping Sparrow	*Spizella passerina*	Protected
Cliff Swallow	*Petrochelidon pyrrhonota*	Protected

Table 1. Bird Species Documented in Atlas Blocks Within, or Partially Within, the Blue Ridge Wilderness and Wakely Mountain Primitive Area During the New York State Breeding Bird Atlas Project, 1980 -1985.

Common Name	Scientific Name	Status
Common Grackle	*Quiscalus quiscula*	Protected
Common Loon	*Gavia immer*	Protected-Special Concern
Common Merganser	*Mergus merganser*	Game Species
Common Nighthawk	*Chordeiles minor*	Protected-Special Concern
Common Raven	*Corvus corax*	Protected
Common Snipe	*Gallinago gallinago*	Game Species
Common Yellowthroat	*Geothlypis trichas*	Protected
Cooper's Hawk	*Accipiter cooperii*	Protected-Special Concern
Dark-eyed Junco	*Junco hyemalis*	Protected
Downy Woodpecker	*Picoides pubescens*	Protected
Eastern Bluebird	*Sialia sialis*	Protected
Eastern Kingbird	*Tyrannus tyrannus*	Protected
Eastern Meadowlark	*Sturnella magna*	Protected
Eastern Towhee	*Pipilo erythrophthalmus*	Protected
Eastern Wood-Pewee	*Contopus virens*	Protected
European Starling	*Sturnus vulgaris*	Unprotected
Evening Grosbeak	*Coccothraustes vespertinus*	Protected
Field Sparrow	*Spizella pusilla*	Protected
Golden Eagle	*Aquila chrysaetos*	Endangered
Golden-crowned Kinglet	*Regulus satrapa*	Protected
Gray Catbird	*Dumetella carolinensis*	Protected
Gray Jay	*Perisoreus canadensis*	Protected
Great Blue Heron	*Ardea herodias*	Protected
Great Crested Flycatcher	*Myiarchus crinitus*	Protected
Great Horned Owl	*Bubo virginianus*	Protected
Green Heron	*Butorides virescens*	Protected
Hairy Woodpecker	*Picoides villosus*	Protected
Hermit Thrush	*Catharus guttatus*	Protected
Herring Gull	*Larus argentatus*	Protected
Hooded Merganser	*Lophodytes cucullatus*	Game Species
House Finch	*Carpodacus mexicanus*	Protected
House Sparrow	*Passer domesticus*	Unprotected
House Wren	*Troglodytes aedon*	Protected
Indigo Bunting	*Passerina cyanea*	Protected
Killdeer	*Charadrius vociferus*	Protected
Least Flycatcher	*Empidonax minimus*	Protected
Lincoln's Sparrow	*Melospiza lincolnii*	Protected
Long-eared Owl	*Asio otus*	Protected
Louisiana Waterthrush	*Seiurus motacilla*	Protected

Table 1. Bird Species Documented in Atlas Blocks Within, or Partially Within, the Blue Ridge Wilderness and Wakely Mountain Primitive Area During the New York State Breeding Bird Atlas Project, 1980 -1985.

Common Name	Scientific Name	Status
Mallard	*Anas platyrhynchos*	Game Species
Mourning Dove	*Zenaida macroura*	Protected
Mourning Warbler	*Oporornis philadelphia*	Protected
Nashville Warbler	*Vermivora ruficapilla*	Protected
Northern Flicker	*Colaptes auratus*	Protected
Northern Goshawk	*Accipiter gentilis*	Protected-Special Concern
Northern Harrier	*Circus cyaneus*	Threatened
Northern Mockingbird	*Mimus polyglottos*	Protected
Northern Parula	*Parula americana*	Protected
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	Protected
Northern Saw-whet Owl	*Aegolius acadicus*	Protected
Northern Waterthrush	*Seiurus noveboracensis*	Protected
Olive-sided Flycatcher	*Contopus cooperi*	Protected
Osprey	*Pandion haliaetus*	Protected-Special Concern
Ovenbird	*Seiurus aurocapillus*	Protected
Philadelphia Vireo	*Vireo philadelphicus*	Protected
Pileated Woodpecker	*Dryocopus pileatus*	Protected
Pine Siskin	*Carduelis pinus*	Protected
Pine Warbler	*Dendroica pinus*	Protected
Purple Finch	*Carpodacus purpureus*	Protected
Purple Martin	*Progne subis*	Protected
Red Crossbill	*Loxia curvirostra*	Protected
Red-breasted Nuthatch	*Sitta canadensis*	Protected
Red-eyed Vireo	*Vireo olivaceus*	Protected
Red-shouldered Hawk	*Buteo lineatus*	Protected-Special Concern
Red-tailed Hawk	*Buteo jamaicensis*	Protected
Red-winged Blackbird	*Agelaius phoeniceus*	Protected
Rock Dove	*Columba livia*	Unprotected
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	Protected
Ruby-crowned Kinglet	*Regulus calendula*	Protected
Ruby-throated Hummingbird	*Archilochus colubris*	Protected
Ruffed Grouse	*Bonasa umbellus*	Game Species
Rusty Blackbird	*Euphagus carolinus*	Protected
Savannah Sparrow	*Passerculus sandwichensis*	Protected
Scarlet Tanager	*Piranga olivacea*	Protected
Sharp-shinned Hawk	*Accipiter striatus*	Protected-Special Concern
Song Sparrow	*Melospiza melodia*	Protected
Spotted Sandpiper	*Actitis macularia*	Protected

Table 1. Bird Species Documented in Atlas Blocks Within, or Partially Within, the Blue Ridge Wilderness and Wakely Mountain Primitive Area During the New York State Breeding Bird Atlas Project, 1980 -1985.

Common Name	Scientific Name	Status
Swainson's Thrush	*Catharus ustulatus*	Protected
Swamp Sparrow	*Melospiza georgiana*	Protected
Tennessee Warbler	*Vermivora peregrina*	Protected
Tree Swallow	*Tachycineta bicolor*	Protected
Veery	*Catharus fuscescens*	Protected
Warbling Vireo	*Vireo gilvus*	Protected
White-breasted Nuthatch	*Sitta carolinensis*	Protected
White-throated Sparrow	*Zonotrichia albicollis*	Protected
White-winged Crossbill	*Loxia leucoptera*	Protected
Wilson's Warbler	*Wilsonia pusilla*	Protected
Winter Wren	*Troglodytes troglodytes*	Protected
Wood Duck	*Aix sponsa*	Game Species
Wood Thrush	*Hylocichla mustelina*	Protected
Yellow Warbler	*Dendroica petechia*	Protected
Yellow-bellied Flycatcher	*Empidonax flaviventris*	Protected
Yellow-bellied Sapsucker	*Sphyrapicus varius*	Protected
Yellow-rumped Warbler	*Dendroica coronata*	Protected

Table 2. Bird Species Documented in Atlas Blocks Within, or Partially Within, the Blue Ridge Wilderness Area (BRW) and Wakely Mountain Primitive Area (WMPA) During the New York State Breeding Bird Atlas 2000 Project, 2000-2003 (Project Ongoing).

Common Name	Scientific Name	Status
Alder Flycatcher	*Empidonax alnorum*	Protected
American Bittern	*Botaurus lentiginosus*	Protected-Special Concern
American Black Duck	*Anas rubripes*	Game Species
American Crow	*Corvus brachyrhynchos*	Game Species
American Goldfinch	*Carduelis tristis*	Protected
American Redstart	*Setophaga ruticilla*	Protected
American Robin	*Turdus migratorius*	Protected
American Woodcock	*Scolopax minor*	Game Species
Bald Eagle	*Haliaeetus leucocephalus*	Threatened
Baltimore Oriole	*Icterus galbula*	Protected
Barn Swallow	*Hirundo rustica*	Protected
Barred Owl	*Strix varia*	Protected
Belted Kingfisher	*Ceryle alcyon*	Protected
Bicknell's Thrush	*Catharus bicknelli*	Protected-Special Concern
Black-and-white Warbler	*Mniotilta varia*	Protected
Black-backed Woodpecker	*Picoides arcticus*	Protected
Blackburnian Warbler	*Dendroica fusca*	Protected
Black-capped Chickadee	*Poecile atricapillus*	Protected
Blackpoll Warbler	*Dendroica striata*	Protected
Black-throated Blue Warbler	*Dendroica caerulescens*	Protected
Black-throated Green Warbler	*Dendroica virens*	Protected
Blue Jay	*Cyanocitta cristata*	Protected
Blue-headed Vireo	*Vireo solitarius*	Protected
Bobolink	*Dolichonyx oryzivorus*	Protected
Boreal Chickadee	*Poecile hudsonicus*	Protected
Broad-winged Hawk	*Buteo platypterus*	Protected
Brown Creeper	*Certhia americana*	Protected
Brown-headed Cowbird	*Molothrus ater*	Protected
Canada Goose	*Branta canadensis*	Game Species
Canada Warbler	*Wilsonia canadensis*	Protected
Cedar Waxwing	*Bombycilla cedrorum*	Protected
Chestnut-sided Warbler	*Dendroica pensylvanica*	Protected
Chimney Swift	*Chaetura pelagica*	Protected
Chipping Sparrow	*Spizella passerina*	Protected
Common Merganser	*Mergus merganser*	Game Species
Common Raven	*Corvus corax*	Protected
Common Snipe	*Gallinago gallinago*	Game Species
Common Yellowthroat	*Geothlypis trichas*	Protected
Cooper's Hawk	*Accipiter cooperii*	Protected-Special Concern

Table 2. Bird Species Documented in Atlas Blocks Within, or Partially Within, the Blue Ridge Wilderness Area (BRW) and Wakely Mountain Primitive Area (WMPA) During the New York State Breeding Bird Atlas 2000 Project, 2000-2003 (Project Ongoing).

Common Name	Scientific Name	Status
Dark-eyed Junco	*Junco hyemalis*	Protected
Downy Woodpecker	*Picoides pubescens*	Protected
Eastern Bluebird	*Sialia sialis*	Protected
Eastern Kingbird	*Tyrannus tyrannus*	Protected
Eastern Phoebe	*Sayornis phoebe*	Protected
Eastern Wood-Pewee	*Contopus virens*	Protected
European Starling	*Sturnus vulgaris*	Unprotected
Evening Grosbeak	*Coccothraustes vespertinus*	Protected
Golden-crowned Kinglet	*Regulus satrapa*	Protected
Gray Catbird	*Dumetella carolinensis*	Protected
Gray Jay	*Perisoreus canadensis*	Protected
Great Blue Heron	*Ardea herodias*	Protected
Great Crested Flycatcher	*Myiarchus crinitus*	Protected
Green Heron	*Butorides virescens*	Protected
Hairy Woodpecker	*Picoides villosus*	Protected
Hermit Thrush	*Catharus guttatus*	Protected
Herring Gull	*Larus argentatus*	Protected
Hooded Merganser	*Lophodytes cucullatus*	Game Species
House Finch	*Carpodacus mexicanus*	Protected
House Sparrow	*Passer domesticus*	Unprotected
House Wren	*Troglodytes aedon*	Protected
Indigo Bunting	*Passerina cyanea*	Protected
Killdeer	*Charadrius vociferus*	Protected
Least Bittern	*Ixobrychus exilis*	Threatened
Least Flycatcher	*Empidonax minimus*	Protected
Lincoln's Sparrow	*Melospiza lincolnii*	Protected
Magnolia Warbler	*Dendroica magnolia*	Protected
Mallard	*Anas platyrhynchos*	Game Species
Merlin	*Falco columbarius*	Protected
Mourning Dove	*Zenaida macroura*	Protected
Nashville Warbler	*Vermivora ruficapilla*	Protected
Northern Flicker	*Colaptes auratus*	Protected
Northern Mockingbird	*Mimus polyglottos*	Protected
Northern Parula	*Parula americana*	Protected
Northern Saw-whet Owl	*Aegolius acadicus*	Protected
Northern Waterthrush	*Seiurus noveboracensis*	Protected
Olive-sided Flycatcher	*Contopus cooperi*	Protected
Osprey	*Pandion haliaetus*	Protected-Special Concern
Ovenbird	*Seiurus aurocapilla*	Protected

Table 2. Bird Species Documented in Atlas Blocks Within, or Partially Within, the Blue Ridge Wilderness Area (BRW) and Wakely Mountain Primitive Area (WMPA) During the New York State Breeding Bird Atlas 2000 Project, 2000-2003 (Project Ongoing).

Common Name	Scientific Name	Status
Philadelphia Vireo	*Vireo philadelphicus*	Protected
Pileated Woodpecker	*Dryocopus pileatus*	Protected
Pine Siskin	*Carduelis pinus*	Protected
Pine Warbler	*Dendroica pinus*	Protected
Purple Finch	*Carpodacus purpureus*	Protected
Red-breasted Nuthatch	*Sitta canadensis*	Protected
Red-eyed Vireo	*Vireo olivaceus*	Protected
Red-tailed Hawk	*Buteo jamaicensis*	Protected
Red-winged Blackbird	*Agelaius phoeniceus*	Protected
Ring-necked Duck	*Aythya collaris*	Game Species
Rock Dove	*Columba livia*	Unprotected
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	Protected
Ruby-crowned Kinglet	*Regulus calendula*	Protected
Ruby-throated Hummingbird	*Archilochus colubris*	Protected
Ruffed Grouse	*Bonasa umbellus*	Game Species
Rusty Blackbird	*Euphagus carolinus*	Protected
Savannah Sparrow	*Passerculus sandwichensis*	Protected
Scarlet Tanager	*Piranga olivacea*	Protected
Sharp-shinned Hawk	*Accipiter striatus*	Protected-Special Concern
Song Sparrow	*Melospiza melodia*	Protected
Sora	*Porzana carolina*	Game Species
Spotted Sandpiper	*Actitis macularia*	Protected
Swainson's Thrush	*Catharus ustulatus*	Protected
Swamp Sparrow	*Melospiza georgiana*	Protected
Tree Swallow	*Tachycineta bicolor*	Protected
Turkey Vulture	*Cathartes aura*	Protected
Veery	*Catharus fuscescens*	Protected-Special Concern
White-breasted Nuthatch	*Sitta carolinensis*	Protected
White-throated Sparrow	*Zonotrichia albicollis*	Protected
White-winged Crossbill	*Loxia leucoptera*	Protected
Wild Turkey	*Meleagris gallopavo*	Game Species
Winter Wren	*Troglodytes troglodytes*	Protected
Wood Duck	*Aix sponsa*	Game Species
Wood Thrush	*Hylocichla mustelina*	Protected
Yellow Warbler	*Dendroica petechia*	Protected
Yellow-bellied Flycatcher	*Empidonax flaviventris*	Protected
Yellow-bellied Sapsucker	*Sphyrapicus varius*	Protected
Yellow-rumped Warbler	*Dendroica coronata*	Protected

Fire Tower Complex on Wakely Mountain Summit

Structure	Description	Condition
Fire Tower	Steel, erected 1916. 69' 6" to floor of cab, 78' 2" to top of roof.	Fair. Windows missing, but frames intact. Roof, stairs, landings intact, but deteriorated. Some spalling of concrete supports. Overall structure appears sound.
Observer Cabin	Wood frame on concrete piers, wood siding, asphalt shingle roof. 27' by 16' 4". Constructed 1972 or 1973.	Good. Door open, but few signs of vandalism beyond graffiti.
Helipad	Wood deck on wood posts. 25' by 25'.	Poor. Deck deteriorated.
Privies	One standard wood near cabin, a larger one with peaked roof near tower used for storage.	Privy near cabin poor. Privy near tower sound.
Picnic Table	Standard wood.	Fair.

Boundary Lines

Type	Approximate Length (miles)	Comments
Boundary between unit lands an d private lands	26	Portion of total boundary needing regular maintenance. All generally maintained, visible on ground.
Boundary between unit lands and other management units	10	WMPA considered part of unit. Does not include length where boundary follows trails or private roads. Generally not visible on ground, except where it coincides with Cellar Brook. Generally needs designation through posting of signs where boundary crosses roads and trails.
Frontage on trails and private roads	4	Includes Gould road, part of trail to Wakely Mountain, part of road to Lake Kora beyond gate
Frontage on public highways	14	Does not include Gould road or part of road to Lake Kora beyond gate.
Frontage on lakes and rivers	4	Lake Durant, South Inlet. Does not include Cellar Brook.
Total unit boundary (BRW and WMPA considered as a whole)	**58**	

Trails

Trail Name or Description	Length (miles)	Class	Marker Type	Marker Color	Comments
Marked Trails	**Total:** 11.5				
Wilson Pond	2.9	III	Foot trail	Red	Fair to good condition, some muddy areas and small stream crossings. Extensive wetland crossing within first half-mile needs relocation or bog bridging.
Cascade Pond	3.5	III	Foot trail	Red	Fair to good condition, some muddy areas
Northville-Lake Placid	3.5	IV	Foot trail	Blue	Fair to good condition, some muddy areas, including significant wetland crossing between private land and Stephens Pond.

Trail Name or Description	Length (miles)	Class	Marker Type	Marker Color	Comments
Sawyer Mountain	1.1	IV	Foot trail	Red	Good condition, some erosion. View from summit will be obstructed by vegetation if not maintained.
Wakely Mountain	0.5	IV	Foot trail	Red	0.5 miles in WMPA. Total trail 3.0 miles - rest in MRPWF. Fair to good condition. Significant erosion on sections of old road to base of steep section, needs ditching and waterbars. Steep section moderately eroded, needs waterbars.
Unmarked Trails Near Sagamore Lake	**Total:** 9.2				
Sagamore Lake Shore	3.5	II			From west end of bridge at Sagamore Lake outlet, continuing clockwise around Sagamore Lake to end of Sagamore Road at Kamp Kill Kare and Camp Uncas gates. Good condition with some wet spots along the south side of Sagamore Lake. 65-foot bridge over Lost Brook has two steel I-beam stringers. **Propose marking as class III red foot trail.**
Path from Sagamore Lake shore trail to Sagamore Lake Waterway Access Site	50 feet	II			Close to beginning of north end of Sagamore Lake shore trail. Affords canoe and kayak access to the lake. Good condition. **Propose marking as class III foot trail, post sign.**
Powerhouse	1.5	II			Starting on east side of South Inlet and proceeding from Sagamore Road, past old Sagamore hydroelectric complex to cascade marking navigable terminus of South Inlet of Raquette Lake. Former carriage road with many sections of poor drainage, especially south half. **Propose marking as class III blue foot trail.**
Cascades	1.5	II			Starting on west side of South Inlet and proceeding from Sagamore Road to cascade marking navigable terminus of South Inlet of Raquette Lake. Former carriage road. Excellent condition. No bridges, no drainage problems. This trail would connect with Powerhouse trail at its end if a former carriage bridge over South Inlet were replaced. **Propose marking as class III blue foot trail.**
Blue Ridge	1.5	II			Loop extension of Sagamore Lake trail. This is a poorly drained little-used former logging road. **Not proposed for marking.**

Trail Name or Description	Length (miles)	Class	Marker Type	Marker Color	Comments
Big Slope	0.5	II			Trail connecting Sagamore Lake trail with Powerhouse trail. Former carriage road with switchbacks converted into skid trail. Long fairly steep grade, many sections with poor drainage. **Propose marking as class III yellow foot trail.**
Crossover	0.7	II			Trail connecting Powerhouse trail with Sagamore Lake trail. Part former skid roads, part foot trail. **Propose marking as class III yellow foot trail.**
Other Unmarked Trails	**Total:** 4.8				
Death Brook Falls Trail	0.3	II			Trail to scenic falls. Beginning is active access road to Golden Beach Campground septic system. Remainder is former road. Mostly clear, firm, level, with one wet spot bypassed by foot path. **Propose marking as class IV blue foot trail.**
Slim Pond Trail	2.5	II			Angler's trail from Route 28 to Slim Pond. Fair condition. Follows old road for most of route with many wet spots. **Propose marking as class III blue foot trail.**
Wilson Pond-Cascade Pond Crossover Trail	1.6	I			Trail connecting Cascade Pond trail with Wilson Pond trail along old stage coach route from Indian Lake to Blue Mountain Lake. Seldom used, substantial blowdown. **Propose marking as class III yellow foot trail.**
Sprague Pond Trail	0.4	II			Trail leading to Sprague Pond. Old road to pond in excellent condition. Paths extend from end of trail along shore to tent sites in both directions. **Propose marking as class IV red foot trail.**
New Trails to be Constructed	**Total:** 7.0				
Wakely Mountain, Cellar Pond Route	0.5	IV	Foot trail	Yellow	0.5 miles in WMPA. Total trail 3.8 miles - rest in MRPWF.
Northville-Lake Placid Trail	6.5	IV	NP Trail	Blue	Includes about 1.3 miles former road. Additional NP Trail reroute mileage in MRPWF.
Trails to be Closed	**Total:** 0.6				
Northville-Lake Placid Trail	0.6				Part of trail from former McCane's Resort to intersection with new trail.
Net Total Proposed Marked Trails	30.4				

Major Bridges

Location	Length	Materials	Condition
East Inlet Sagamore Lake	65 feet	Steel I-beam stringers, wood deck. No center support.	Stringers sound. Deck fair.
Cascade Pond Outlet	35 feet	Half log construction	Good
Rock Pond	180 feet	Log stringers, wood deck	Good
Foot Bridge below Stephens Pond	30 feet	Log stringers, wood deck	Fair

Trailheads

Trail Served	Class	Comments
Sagamore Lake Trail	3	Undeveloped parking in roadside clearing near north entrance to Sagamore Lake trail. Accommodates 3 cars, though overflow parking occurs. No signs or trail register. Up road 230 feet from trail in MRPWF potential parking for 6 cars. Parking area not identified with sign. On south end, no parking, register or sign.
Powerhouse Trail	3	Parking area on east side of Sagamore Road partly surfaced with crushed limestone, partly unpaved. Can accommodate 5 cars. No signs or trail register.
Cascades Trail	3	Unpaved parking area on east side of Sagamore Road. Accommodates 5 cars. No signs or trail register. Small parking area 0.1 miles south just north of bridge surfaced with crushed limestone, accommodates 3 cars.
Death Brook Falls (DOT)	3	Unpaved pulloff with significant side slope beside Route 28 can accommodate 6-8 cars. No trail register or signs. Appears to be in DOT right-of-way.
Slim Pond (DOT)	3	Unpaved pulloff beside Route 28. No trail register or signs. Appears to be in DOT right-of-way.
Wilson Pond (DOT)	2	Muddy. Accommodates 6 cars. No trail register. Appears to be within DOT right-of-way. Guideboard on post.
Cascade Pond (Unclassified Forest Preserve)	2	Muddy. Accommodates 3 cars. No trail register. Situated in unclassified parcel formerly thought to be in Blue Mountain Wild Forest and included in that UMP. Guideboard at beginning of road and near parking area on tree.

Trail Served	Class	Comments
Northville-Lake Placid Trail, Route 28 at Lake Durant (DOT)	2	Good black-topped parking area on Route 28, both sides. Accommodates total of 15-20 cars. Situated in DOT right-of-way adjacent to Blue Mountain Wild Forest. Large identification signs. Trail register located 0.9 miles down trail in campground.
Stephens Pond (Lake Durant Campground)	2	Paved parking within campground. No trail register or signs. Trail register at edge of campground on trail to pond.
Sawyer Mountain (DOT)	2	Good black-topped parking area. Accommodates 7 cars. Has trail register. Appears to be within DOT right-of-way. Roadside guideboard.
Sprague Pond	3	Undeveloped parking. Roadside clearings on both sides of Cedar River Road. North side capacity: 3 cars. South side capacity: 5 cars. No trail register. No identification sign.
Wakely Mountain (MRPWF)	1	Good condition. Accommodates 15-20 cars. Has trail register. Situated in Moose River Plains Wild Forest. Signs on Cedar River Road.

Waterway Access Sites

Location	Water Body	Boating Restrictions	Parking Capacity
Route 28 at South Inlet	South Inlet	None	16 cars in two paved parking areas.
Off north entrance Sagamore Lake trail, 150 feet from beginning	Sagamore Lake	No Motors	3 cars at beginning of trail. More parking in vicinity.

Barriers

Location	Type	Condition
Sagamore Lake trail, north Entrance, 150 feet in from start of trail	Two boulders	Good
Sagamore Lake trail, south entrance	Five boulders	Good
Powerhouse trail, 150 feet east of Sagamore Road	Six boulders	Good
Cascades trail, 75 feet east of Sagamore Road	Three boulders	Good

Location	Type	Condition
Golden Beach Campground Septic System Road	Pipe Gate	Good. Nonconforming.
Former road, south side Route 28, 9.3 miles west of intersection Routes 28 and 30, Blue Mt. Lake	Two boulders	Good
Former road, south side Route 28, 9.1 miles west of intersection Routes 28 and 30, Blue Mt. Lake	Three boulders	Good
Former road, south side Route 28, 9.0 miles west of intersection Routes 28 and 30, Blue Mt. Lake	Three boulders	Good
Former road, south side Route 28, 8.4 miles west of intersection Routes 28 and 30, Blue Mt. Lake	Three large boulders, several smaller boulders	Good
Former road, south side Route 28, east end Slim Pond trail parking area.	Three boulders	Good
Entrance to former gravel pit on Cedar River Road east of Fletcher Pond.	Several small boulders	One boulder has been moved permitting the passage of motor vehicles.
Sprague Pond Trail	Pipe Gate	Good. Nonconforming.
On trail to Wakely Mountain, 1.1 miles from Cedar River Road, before trail crosses stream	Two boulders	Good

Primitive Tent Sites

Location	Number	Designated (Y/N)	Comments
Sagamore Lake	2	No	One in field on north side at least 300 feet from shore. Good location. One on beach at east end near East Inlet. Not a suitable location - too close to shore. Probably mostly day use.
East Inlet Sagamore Lake (interior)	1	No	Used during big game season.
South side Route 28 near Raquette Lake	1	No	Near road, little used.
Near Brook East Side Estelle Mountain	1	No	Used during big game season.
Death Brook	2	No	Used during big game season.
Slim Pond	1	No	Within 50 feet of shore, but well-screened, level. Good site.
Bear Pond	1	No	
Old Road Southwest of Slim Pond	2	No	Used during big game season.
Rock Brook	1	No	Used during big game season.
Lower Mitchell Pond	1	No	Used during big game season.
Cascade Pond	2	No	Too close to lean-to. Need to relocate.
Stephens Pond	1	No	Too close to lean-to. Need to relocate.
Former Gravel Pit, Cedar River Road	1	No	Used during big game season.
Sprague Pond	7	No	Two illegal sites on islands could affect nesting loons. Closure needs continued enforcement. Two sites near islands on west shore are on slopes, within 10 feet of shore. May be mostly day use sites. Many suitable potential tent site locations more than 100 feet from shore.
Gould Road	1	No	Used during big game season. Seven others on MRPWF side of road.
Total:	**25**		

Lean-tos

Location	Distance from Shore	Fireplace (Y/N)	Condition
Wilson Pond	Approximately 60'	Yes	Good. Built 1967. Rot in each end of deacon seat, sound in middle. Needs oakum. Foundation: four large rocks. Located in dense stand of young spruce-fir, no view of pond, invisible from pond. No soil erosion. Stone fireplace.
Cascade Pond	Approximately 40'	Yes	Fair. Built 1958. Dimensions 9' by 12'. Good roof, but base course of logs contains significant rot. Filtered view of pond, well screened from pond. Soil erosion minimal.
Stephens Pond	More than 100'	No - has fire ring	Good. Built 1925, reconstructed 1991.

Privies

Location	Distance from Shore	Condition
Wilson Pond Lean-to	More than 150'	Good
Cascade Pond Lean-to	More than 150'	Fair
Stephens Pond Lean-to	More than 150'	Fair
Wakely Mountain Summit (2)	- - -	One near cabin poor. One near tower fair, used for equipment storage.

Dams

Location	Type	Materials	Condition
Camp Sagamore Spur Road over Sagamore Lake Outlet (on edge of BRW, within MRPWF)	Water level regulation. Original purpose to supply periodic pulses of water to hydroelectric facility in summer.	Concrete	Appears good. Structure integral with bridge. One of two flash boards in place.
Sagamore Lake Outlet - Camp Sagamore Former Hydroelectric Complex	Hydroelectric	Concrete	Breached, appears stable.
Sprague Pond Outlet	Fish Barrier	Wood, rock-filled cribbing.	Good. Constructed 1971, reconstructed 1994. Needs repair or relocation to address persistent leakage.

Sagamore Hydroelectric Complex

Structure	Description	Condition
Dam	Concrete hydroelectric dam with concrete abutments.	Dam breached, appears stable. Abutments appear sound, stable.
Valvehouse	Concrete and brick structure with concrete roof housing valve used to regulate water flow to powerhouse.	Building appears sound and stable. Access open to significant drop - public safety hazard.
Penstock	Ditch formerly containing wood water conduit between valvehouse and powerhouse.	Most of wood removed or rotted away. Numerous rusting steel hoops remain.
Powerhouse	Concrete and brick structure with concrete roof, steel door and window shutters. Contains remnants of turbines, generators and related equipment.	Building appears sound and stable. Door open, interior accessible to public. Generators partly dismantled, some equipment removed, other items scattered on floor. Vegetation growing in accumulated organic material on roof.

APPENDIX 10 – REGION 5 TRAIL REGISTER STANDARD OPERATING PROCEDURE

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: (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) are to provide a better system for collecting accurate state land user information. This information is imperative for search and rescue activities, unit management planning, and establishing state land user trends and 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 and 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.

PART 95
HUNTING AND TRAPPING ON THE SAGAMORE TRACT - HAMILTON COUNTY

(Statutory authority: Environmental Conservation Law, §11-2101)

Sec
95.1 Hunting, trapping or trespassing for such purposes prohibited

Historical Note

Part (§95.1) filed Sept. 15, 1976 as emergency measure; made permanent by order filed Oct. 25, 1976.

§95.1 Hunting, trapping or trespassing for such purposes prohibited.

(a) On that portion of the Town of Long Lake in Hamilton County, which is owned by the State of New York, bounded by a continuous line extending southwesterly from a wooden stake on the northerly side of the access road to Kamp Kill Kare along the northerly side of the Raquette Lake to Camp Uncas Road, a distance of 850± feet to a point marked by a wooden stake; thence due north (magnetic) along a straight line, a distance of 2200± feet to a point marked by a wooden stake between telephone poles number 81 and 82 on the westerly side of the access road from Raquette Lake to Camp Sagamore; thence due east (magnetic) along a straight line, a distance of 1450± feet to a point on the shore of Sagamore Lake marked by a wooden stake; thence southerly and easterly along the shore of Sagamore Lake to another point marked by a wooden stake; thence due south (magnetic) along a straight line, a distance of 1565± feet to a point marked by a wooden stake on the northerly side of the access road to Kamp Kill Kare; and thence northwesterly along the northerly side of said access road to Kamp Kill Kare, a distance of 1500± feet to a point marked by a wooden stake on Raquette Lake to Camp Uncas Road at the point of beginning, as shown on a map filed in the office of the Department of Environmental Conservation, Albany, NY 12233, no person shall hunt, trap or trespass thereon for these purposes.

(b) Nothing contained herein shall prohibit public access for any purposes other than hunting or trapping, as provided in article 9 of the Environmental Conservation Law and rules and regulations promulgated thereunder.

Historical Note

Sec. Filed Sept. 15, 1976; amds. Filed: Oct. 25, 1976; Dec. 28, 1977; April 29, 1982 eff. April 29, 1982. Amended (a).

APPENDIX 12 – Best Management Practices for the Control of Four Terrestrial Invasive Plant Species on Adirondack Forest Preserve Lands

Applicability

These Best Management Practices (BMPs) 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 Agreement (AANR). 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 New York State 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 BMPs and the regulatory instruments needed prior to their implementation. These settings and relevant action are:

In or within 100 feet of a wetland on private or public lands: Work requires a general permit from the Adirondack Park Agency.

On Forest Preserve lands: Work requires an AANR from the Department of Environmental Conservation and, if wetlands are involved, an Adirondack Park Agency permit.

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 (CP17), 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 (http://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 marshaling 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/m 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 years 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 is not 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 spillover 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 touch-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 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.

APPENDIX 13 – TRAIL CLASSIFICATION SYSTEM

CLASS	EXAMPLE	MARKING	TREAD	BARRIERS	USE LEVEL	ACCEPTABLE MAINTENANCE
I Unmarked Route	Fisherman's path along South Inlet	None	Intermittently apparent, relatively undisturbed organic soil horizon	Natural obstructions present, logs and water courses	Occasional	None
II Path	Trail to Slim Pond	Intermittent	Intermittently apparent, compaction of duff, mineral soils occasionally exposed	Same as unmarked route	Low, varies by location	Intermittent marking with consideration given to appropriate layout based on drainage, occasional barrier removal only to define appropriate route.
III Primitive	Trail to Wilson Pond	Trail markers, sign at junction with secondary or other upper level trail	Apparent, soil compaction evident	Limited natural obstructions (logs and river fords)	Low	Drainage (native materials) where necessary to minimize erosion, blowdown removed 2-3 years, brushing as necessary to define trail (every 5-10 years). Bridges only to protect resource (max - 2 log width). Ladders only to protect exceptionally steep sections, tread 14"-18", clear: 3' wide, 3' high.
IV Secondary	Wakely Mountain Trail	Markers, signs with basic information	Likely worn and possibly quite eroded. Rocks exposed, little or no duff remaining	Up to one year's accumulated blowdown, small streams.	Moderate	Drainage where needed to halt erosion and limit potential erosion (using native materials), tread hardening with native materials where drainage proves to be insufficient to control erosion. Remove blowdown annually. Brush to maintain trail corridor. Higher use may warrant greater use of bridges (2–3 logs wide) for resource protection. Ladders on exceptionally steep rock faces. Tread 18"-24". Clear 4' wide, 3' High.
V Trunk or Primary Trail	None in unit.	Markers, signed with more information and warnings.	Wider tread, worn and very evident. Rock exposed, possibly very eroded.	Obstructions only rarely, small streams	High	Same as above; Plus: regular blowdown removal on designated ski trails, non-native materials as last resort, Extensive tread hardening when needed, bridge streams (2–4 logs wide) difficult to cross during high water, priority given to stream crossings below concentrations of designated camping. Tread 18"-26", clear 6' wide, 8' high, actual turn piking limited to 2% of trail length.
VI Front Country	None in unit.	Heavily marked, detailed interpretive signing	Groomed	None	Very High	Extensive grooming, some paving, bark chips, accessible for people with disabilities. This is to be implemented within 500' of wilderness boundary.
VII Horse Trail	None in unit.	Marked as Trunk or Secondary	Wide tread, must be rather smooth.	Same as Trunk Trail.	Moderate to High	Same as trunk trail, except use techniques appropriate for horses. Bridges: 6' minimum width with kick rails, nonnative dimensional materials preferred. Tread: 2'-4' wide, clear 8' wide, 10' high.
VIII Ski Trail	Sagamore trails.	Marked High. Special markers, sign at all junctions with hiking trails.	Duff remains. Discourage summer use	Practically none due to hazards.	High	Focus on removal of obstructions, maintenance should be low profile, tread determined by clearing 6' (Should be slightly wider at turns and steep sections. Provide drainage using native materials to protect resource.

APPENDIX 14 – ALTERNATIVES: NORTHVILLE-LAKE PLACID TRAIL RELOCATION

0. NO ACTION: MAINTAIN THE CURRENT TRAIL LOCATION

Advantages: Maintaining the current route would require no trail construction. Keeping people on the part of the route on Cedar River Road would minimize the physical and biological impacts of public use on Forest Preserve lands. Existing maps and guidebooks would not need to be revised. The current route is the alternative with the least overall length.

Disadvantages: Of all the alternatives, this one would require the longest road walk, and therefore the greatest length of trail shared with potentially conflicting uses - automobiles and snowmobiles. The trail segment just north of the point where the trail enters the Blue Ridge Wilderness from private land crosses an extensive wetland which can be avoided by the other alternatives. Most importantly, because the private property formerly owned by McCane has been sold, and the new owner has requested that the trail be removed from the property, the trail must be relocated. Therefore, the no-action alternative is not open for consideration.

1. EXISTING TRAIL TO PAYNE BROOK, OLD ROAD TO WAKELY DAM, SNOWMOBILE TRAIL, EAST SIDE METCALF MOUNTAIN AND BLUE RIDGE:

Heading northerly along the west side of Cedar River Flow, this route would depart from the existing route at Payne Brook, where it would follow an old road reported to lie between Limekiln Lake-Cedar River Road and the shore of the Flow heading northeasterly to Wakely Dam. It would cross the dam and proceed along an existing snowmobile trail that runs northeasterly on the east side of the Cedar River, first through State, then private lands. The snowmobile trail forms the boundary between the Moose River Plains Wild Forest and West Canada Lake Wilderness. The trail would cross the Cedar River on an existing bridge east of Sugarloaf Mountain, emerge on Cedar River Road, head northerly on the road for approximately one-quarter mile, leave the road heading westerly across private land on an old road that is a deeded right-of-way into the Blue Ridge Wilderness. New trail would be constructed along the southeasterly flank of Metcalf Mountain heading northeasterly just inside the Forest Preserve boundary. The route would pass through the notch between Metcalf and Round Top Mountains, pass to the north of Round Top and along the foot of Blue Ridge toward Stephens Pond.

The original version of this alternative contemplated following the snowmobile trail farther northeasterly within the private land to a second crossing, where the trail would emerge onto Cedar River Road and on to McCane's. However, because the new owner of McCane's would like the trail to be relocated from the property, this version is not being considered.

Advantages: The route would eliminate all but about one-quarter mile of the walk on Cedar River Road. It would follow an existing trail to Payne Brook, then an old road to Wakely Dam, a short walk on Cedar River Road, then a road into

the Blue Ridge Wilderness, leaving only about six miles of new trail construction. The route would pass through the camping area at Wakely Dam. Much of the potential route northeast of Metcalf Mountain has been scouted and found to be suitable for trail construction and use.

Disadvantages: Though most of the walking on Cedar River Road would be eliminated, some road walking would remain. The route would include approximately one quarter mile of road walking at the foot of Sugarloaf Mountain. The route crosses private lands leased for hunting. Because lessees might be concerned about attracting the public to leased areas, the landowner might not be willing to give permission for the use of the part of the trail route on the east side of the Cedar River. There are reported to be a number of wet sections on the snowmobile trail. Fairly heavy snowmobile use would conflict with winter pedestrian use. The snowmobile trail route within the private lands is open to motor vehicle use by the landowner and lessees. Roads in the Moose River Plains Wild Forest may legally be designated for bicycle, snowmobile and motor vehicle use by people with disabilities. Should such uses not be proposed for segments of this route within the Moose River Plains Wild Forest because of its NP Trail designation, the potential for various wild forest uses would be restricted.

1.b. EAST SIDE CEDAR RIVER FLOW TO WAKELY DAM, SNOWMOBILE TRAIL, EAST SIDE METCALF MOUNTAIN AND BLUE RIDGE: From the point where the existing trail touches the south end of Cedar River Flow, a new trail would be constructed along the east shore of the flow in the West Canada Lake Wilderness to Wakely Dam. The route would then proceed exactly as in alternative 1, going northeasterly along the snowmobile trail on the east side of the Cedar River, moving from Forest Preserve to private lands, then cross the Cedar River and Cedar River Road into the Blue Ridge Wilderness, heading northeasterly toward Stephens Pond.

Advantages: Construction of this route would complete a loop trail around Cedar River Flow. New camping opportunities on the east shore would be available for travelers, and the route would pass through the camping area at Wakely Dam. Because the trail on the east side of the Flow would be in wilderness, it would be restricted to foot travel. Because it would be constructed as a trail, it would have more trail character than the existing route along the west side of the Flow, which follows active and former roads. The new trail could take advantage of an existing path along an old road between Buell Brook and Wakely Dam.

Disadvantages: Because the part of this route north of Wakely Dam is the same route as the one described in alternative 1, it would have the same disadvantages. In addition, this route would require nearly two miles of new trail construction along the east side of the Flow, for a total of approximately eight miles of new trail. The new segment on the east side of the Flow also would involve the opening up of over two and one-half miles of former roads and

probably would require the construction of a foot bridge 30 to 40 feet long over the Cedar River, which is classified scenic at the proposed crossing point. Wetlands along Buell Brook may necessitate a significant trail detour.

2. EXISTING ROUTE TO PAYNE BROOK, OLD ROAD TO WAKELY DAM, WAKELY MOUNTAIN TRAIL, EAST SIDE METCALF MOUNTAIN AND BLUE RIDGE: The existing route northerly along the west shore of Cedar River Flow to Payne Brook would remain in place. At Payne Brook the route would depart from the existing route, heading northeasterly to Wakely Dam on an old road reported to lie between Limekiln Lake-Cedar River Road and the shore of the Flow. The route would continue northerly on Cedar River Road to the Wakely Mountain trailhead, then shoot up the Wakely Mountain trail for approximately one mile. It would leave the Wakely Mountain trail, heading northerly on an old road known as the Gould road. The trail would leave the Gould road and the Moose River Plains Wild Forest and head northerly into the Blue Ridge Wilderness on an old spur road along the southeasterly flank of Metcalf Mountain. From a point where the old road becomes indistinct, new trail would be constructed just inside the State land boundary going northeasterly. The route would pass through the notch between Metcalf and Round Top Mountains and pass on the north side of Round Top, work its way along the foot of Blue Ridge and on toward Stephens Pond.

Advantages: The entire route would be on Forest Preserve land. All but about one-quarter mile of walking on Cedar River Road would be eliminated. It would be less than a mile longer than the existing route. A substantial part of the route would follow existing trails and old roads, leaving only a little more than five miles of new trail to be constructed. The route would depart the Wakely Mountain trail before the half-mile segment of wet trail east of the foot of the mountain. It would continue to pass through the camping area at Wakely Dam. A side trip to the summit of Wakely Mountain would be a convenient option for through travelers.

Disadvantages: Much of the route would follow active and former roads, whose character is less desirable than parts of the route constructed according to foot trail standards. Roads in the Moose River Plains Wild Forest may legally be designated for bicycle, snowmobile and motor vehicle use by people with disabilities. Should such uses not be proposed for segments of this route within the Moose River Plains Wild Forest because of its NP Trail designation, the potential for various wild forest uses would be restricted.

2.b. EAST SIDE CEDAR RIVER FLOW TO WAKELY MOUNTAIN TRAIL, EAST SIDE METCALF MOUNTAIN AND BLUE RIDGE: In this variation of alternative 2, the existing trail would be relocated from the west side to the east side of Cedar River Flow, where a new trail would be constructed. The route from Wakely Dam northward would be the same.

Advantages: All but approximately one quarter mile of road walk would be eliminated. The entire route would be on Forest Preserve land. It would be only about a half-mile longer than the existing route, the shortest of all the other alternatives. New camping opportunities on Cedar River Flow could be made available to travelers, adding to the available camping capacity at Wakely Dam. The new trail could take advantage of an existing path between Buell Brook and Wakely Dam, as well as part of the existing trail up Wakely Mountain. Construction of this route would complete a loop trail around Cedar River Flow. Because the trail on the east side of the Flow would be in wilderness, it would be restricted to foot travel. Because it would be constructed as a trail, it would have more trail character than the existing route along the west side of the Flow, which follows an old road.

Disadvantages: Though most of the walk on Cedar River Road would be obviated, approximately one quarter mile still would be required. In addition, this route would require nearly two miles of new trail construction along the east side of the Flow, for a total of approximately seven miles of new trail. The new segment on the east side of the Flow also would involve the opening up of over two and one-half miles of former roads and probably would require the construction of a foot bridge 30 to 40 feet long over the Cedar River, which is classified scenic at the proposed crossing point. Wetlands along Buell Brook may necessitate a significant trail detour.

3. **EXISTING ROUTE TO PAYNE BROOK, OLD ROAD TO WAKELY DAM, GOULD ROAD, EAST SIDE METCALF MOUNTAIN AND BLUE RIDGE:** This alternative would preserve the existing route going northerly along the west shore of Cedar River Flow to Payne Brook. At Payne Brook the route would depart from the existing route, heading northeasterly to Wakely Dam on an old road reported to lie between Limekiln Lake-Cedar River Road and the shore of the Flow. The route would follow Cedar River Road for a little more than a mile, then head northwesterly on an existing forest road, known as the Gould road, just north of Wakely Pond. This road is the boundary between the Blue Ridge Wilderness and the Moose River Plains Wild Forest. The route then would leave the Gould road and head northerly into the Blue Ridge Wilderness on an old spur road along the southeasterly flank of Metcalf Mountain. From a point where the old road becomes indistinct, new trail would be constructed just inside the State land boundary going northeasterly. The route would pass through the notch between Metcalf and Round Top Mountains and pass on the north side of Round Top, work its way along the foot of Blue Ridge and on toward Stephens Pond.

Advantages: The entire route would be on Forest Preserve land. A substantial amount of road walking would be eliminated. Substantial parts of the route would follow active and former roads, reducing the need for new trail construction. The route would be only about a mile longer than the existing route. It would continue to pass through the camping area at Wakely Dam.

Disadvantages: The route would involve walking more than a mile on Cedar River Road. Much of the route would follow active and former roads, whose character is less desirable than parts of the route constructed according to foot trail standards. The Gould road is open to public motor vehicle use, though the Moose River Plains Wild Forest UMP will propose that it be blocked. Roads in the Moose River Plains Wild Forest may legally be designated for bicycle, snowmobile and motor vehicle use by people with disabilities. Should such uses not be proposed for segments of this route within the Moose River Plains Wild Forest because of its NP Trail designation, the potential for various wild forest uses would be restricted.

3.b. EAST SIDE CEDAR RIVER FLOW TO GOULD ROAD, EAST SIDE METCALF MOUNTAIN AND BLUE RIDGE: In this variation of alternative 3, instead of the existing route remaining in place on the west side of Cedar River Flow, a new trail would be established on the east side from the south end of the Flow to Wakely Dam.

Advantages: All but a little more than a mile of walking on Cedar River Road would be eliminated. The entire route would be on Forest Preserve land. It would be less than a mile longer than the existing route. New camping opportunities on Cedar River Flow could be made available to travelers, adding to the available camping capacity at Wakely Dam. The new trail could take advantage of an existing path between Buell Brook and Wakely Dam, as well as segments of old roads. Construction of this route would complete a loop trail around Cedar River Flow. Because the trail on the east side of the Flow would be in wilderness, it would be restricted to foot travel. Because it would be constructed as a trail, it would have more trail character than the existing route along the west side of the Flow, which follows an old road.

Disadvantages: Though most of the walk on Cedar River Road would be obviated, a little more than a mile still would be required. In addition, this route would require nearly two miles of new trail construction along the east side of the Flow, for a total of approximately seven miles of new trail. The new segment on the east side of the Flow also would involve the opening up of over two and one-half miles of former roads and probably would require the construction of a foot bridge 30 to 40 feet long over the Cedar River, which is classified scenic at the proposed crossing point. Wetlands along Buell Brook may necessitate a significant trail detour.

4. WILSON RIDGE, EAST SIDE WAKELY AND METCALF MOUNTAINS, BLUE RIDGE: Heading north from the West Canada Lake Wilderness, this route would depart the existing trail just north of the south end of Cedar River Flow, head westerly into the Moose River Plains Wild Forest along the south flank of Wilson Ridge on the Wilson Ridge road to Limekiln Lake-Cedar River Road, then follow Limekiln Lake-Cedar River Road easterly for approximately 1.4 miles. It would then head northerly on the Cellar Pond road along the east flank of Cellar

Mountain for about 0.7 mile, depart from the road going generally northeastward on an old road along the southeast flanks of Wakely and Metcalf Mountains, enter the Blue Ridge Wilderness and pass through the notch to the north side of Round Top Mountain, then make its way along the foot of Blue Ridge toward Stephens Pond. The route also could include the routes described in alternatives 6 and 7.

Advantages: The entire route would be on Forest Preserve land. Most of the route would follow existing and former roads, where trail construction work would be minimal. It is thought that there might be opportunities for views from various points along the flanks of Wakely and Metcalf Mountains. Should this route be chosen, a proposed new route to the summit of Wakely Mountain would become a convenient side trip for through-travelers. (The new route would follow the Cellar Pond road to Cellar Pond, then proceed northeasterly along the top of the ridge to the summit. This route would ascend the mountain more gradually than the existing route up the fall line.)

Disadvantages: Because much of this connecting route would follow roads, including about 1.4 miles on Cedar River Road, it would not have the character most appropriate for a foot trail. The Wilson Ridge road is open to motor vehicle use by members of the Little Moose Lake Club until their lease expires in 2006. This alternative would add the longest distance to the trail because it would involve a wide swing around Wilson Ridge to avoid a direct climb up its steep flanks. A long side trip would be required to the camping area at Wakely Dam. Roads in the Moose River Plains Wild Forest may legally be designated for bicycle, snowmobile and motor vehicle use by people with disabilities. Should such uses not be proposed for segments of this route within the Moose River Plains Wild Forest because of its NP Trail designation, the potential for various wild forest uses would be restricted.

5. **PAYNE BROOK VALLEY, EAST SIDE WAKELY AND METCALF MOUNTAINS, BLUE RIDGE:** The route of this alternative would depart from the present route near the point where the trail heading northerly along the west side of Cedar River Flow emerges onto Limekiln Lake-Cedar River Road. The route would cross Limekiln Lake-Cedar River Road and go northwesterly within the Moose River Plains Wild Forest along a road roughly paralleling Payne Brook, then continue westerly on new trail, swing northerly then northeasterly along an old road on the contour along the southeasterly flank of Wakely Mountain, proceed through the notch between Wakely and Payne Mountains and move on northeasterly along the foot of Wakely and Metcalf Mountains, enter the Blue Ridge Wilderness and pass through the notch to the north side of Round Top Mountain, then make its way along the foot of Blue Ridge toward Stephens Pond.

Advantages: This route would entirely eliminate the need to walk on Cedar River Road. The entire route would be on Forest Preserve land. It would take advantage of an old road in the Payne Brook valley, as well as a number of other old roads. It is thought that there might be opportunities for views from various

points along the flank of Wakely Mountain. The construction of this route would give through-hikers the option of taking this route or walking a shorter route on Cedar River Road to the current Wakely Mountain trailhead, then up the Wakely Mountain trail to intersect the new route. It also would allow campers at Wakely Dam to walk a loop by heading up the Wakely Mountain trail, then down Payne Brook and back along Limekiln Lake-Cedar River Road. Should this route be chosen, a proposed new route to the summit of Wakely Mountain would become a convenient side trip for through-travelers. (The new route would follow the Cellar Pond road to Cellar Pond, then proceed northeasterly along the top of the ridge to the summit. This route would ascend the mountain more gradually than the existing route up the fall line.)

Disadvantages: The route would involve old roads, though they are growing in and taking on the character of a foot trail. The Payne Brook road is open to public motor vehicle use, though blowdown now impedes travel and the Moose River Plains Wild Forest UMP will propose that it be blocked. The Payne Brook road passes through the center of a large historical deer wintering area, though it is not likely that the low levels of anticipated winter use would have a significant impact on deer. Travelers would have to take a detour of approximately 1.5 miles along Limekiln Lake-Cedar River Road to reach the camping area at Wakely Dam. Roads in the Moose River Plains Wild Forest may legally be designated for bicycle, snowmobile and motor vehicle use by people with disabilities. Should such uses not be proposed for segments of this route within the Moose River Plains Wild Forest because of its NP Trail designation, the potential for various wild forest uses would be restricted.

6. **WAKELY-METCALF RIDGE:** This is a trail segment that could become part of either alternative 4 or 5. It would begin on the Cellar Pond road, proceed to Cellar Pond, then go northeasterly along the top of the ridge to the summit of Wakely Mountain. From the summit, the trail would push on northeasterly, generally following the entire ridge line for more than six miles, drop into the notch between Metcalf and Round Top Mountains, pass to the north of Round Top and follow along the foot of Blue Ridge and on toward Stephens Pond. The route begins in the Moose River Plains Wild Forest, but is mostly within the Blue Ridge Wilderness and WMPA.

Advantages: This route would include a visit to the Wakely Mountain fire tower (should it be retained). The construction of this route would allow for a new approach to the Wakely Mountain summit from Cellar Pond northeasterly up the ridge line. The new route would ascend the mountain more gradually than the existing route up its steep southeast flank.

Disadvantages: Making a passage over Wakely and Metcalf Mountains would involve fairly strenuous climbing, especially for through-hikers wearing heavy backpacks. Some NP Trail historians suggest that the trail was intended to be a lowland route. The route would involve significant new trail construction in what

appears to be a dense continuous forest of red spruce and balsam fir. It appears that the forest cover is closed along the ridge, and it is likely that there would be few opportunities for views from the trail. Most of the route would be within the Adirondack Subalpine Forest Bird Conservation Area (BCA), which includes all lands in Hamilton County above 2,800 feet.

7. **WEST SIDE OF WAKELY AND METCALF MOUNTAINS:** This is another trail segment that could become part of either alternative 4 or 5. It would veer off the road to Cellar Pond going northwesterly, then northeasterly. The trail would descend gradually and then continue along the bottom of the northwesterly flanks of Wakely and Metcalf Mountains. The trail would continue northeasterly, passing to the north of Round Top, along the foot of Blue Ridge and on toward Stephens Pond. Though it begins in the Moose River Plains Wild Forest, the route is almost entirely within the Blue Ridge Wilderness.

Advantages: The route would open a large unexplored valley of old growth forest to discovery by hikers. It would be a lowland route, which might be preferred by some NP Trail historians. Should this route be chosen, a proposed new route to the summit of Wakely Mountain would become a convenient side trip for through-travelers. (The new route would follow the Cellar Pond road to Cellar Pond, then proceed northeasterly along the top of the ridge to the summit. This route would ascend the mountain more gradually than the existing route up the fall line.)

Disadvantages: This route would involve significant new trail construction. Of all the alternatives, it would penetrate farthest into the trailless interior of the Blue Ridge Wilderness. According to available inventory information, significant portions of the area traversed by the route are covered by dense spruce-fir forest that would make trail construction difficult and have limited visual appeal for travelers. Wetlands associated with Cellar Brook may make a trail crossing impracticable, requiring a long detour northwest of Cellar Pond. Situated on the northwest side of the mountain, it is likely that this route would retain snow later in the year than the alternative routes on the summit or the south side.

COMPARISON OF ALTERNATIVES AND SELECTION OF A PREFERRED ALTERNATIVE

A review of the 13 alternative routes for the NP Trail selected for consideration shows that each has advantages and disadvantages. Table 13 gives a comparison of the alternatives in terms of relative mileages in various categories. The distances were derived by map measurement of hypothetical routes and are presented for general comparison purposes only. In comparing alternatives, their benefits and drawbacks were weighed in terms of their relevance to the objectives listed previously.

In assessing the alternatives according to the objectives, it was clear that some alternatives should quickly drop out of consideration. If there were no reasonable alternatives to those in which significant distances of walking on a public highway or

across private lands were necessary, then a detailed comparison of alternatives involving road walking or private lands would be in order. However, alternatives 1, 1b, 2 and 2b would require minimal road walking, and alternative 5, with variations involving alternatives 6 and 7, would require no road walking. Of those, alternatives 2, 2b and 5 (with variations 6 and 7) do not cross private lands. Variation 6 drops out of consideration because of its high level of difficulty for through-hikers and the likelihood that few views would reward the climb, and variation 7 suffers from a number of siting difficulties. Therefore, it would appear unnecessary to delve any depth into alternatives other than 2, 2b and 5.

Table 13. Northville-Lake Placid Trail Relocation - Mileages by Category for Each Alternative[1]

Trail Category	Mileages by Alternative												
	0	**1**	**1b**	**2**	**2b**	**3**	**3b**	**4**	**4 (6)**	**4 (7)**	**5**	**5 (6)**	**5 (7)**
Cedar River Road	7.6	0.3	0.3	0.3	0.3	1.1	1.1	1.4	1.4	1.4	0	0	0
DEC Road Open to Public Motor Vehicle Use (Not Cedar River Road)[2]	0	0	0	0.1	0.1	0.5	0.5	0.7	0.7	0.7	1	1	1
Private Road[3]	0.2	1.6	1.4	0.2	0	0.2	0	3.7	3.7	3.7	0.2	0.2	0.2
Old Road Not Open to Motor Vehicles	3.2	4.8	2.8	7.6	5.6	6.7	4.7	5.6	1.8	2.8	7.8	3.6	4.6
Existing Trail[4]	1.6	2.3	2.3	0	0	0	0	0	0	0	0	0	0
New Trail	0	5.9	7.8	5.2	7.1	5.2	7.1	6.1	9.9	8.8	6.4	11	10
Total Length of Route	13	14.9	14.6	13	13	14	13	18	18	17	15	16	16
Net Mileage	0	2.3	2	0.8	0.5	1.1	0.8	4.9	4.9	4.8	2.8	3.5	3.4

[1]*For comparison purposes, the starting point of all routes is the south end of Cedar River Flow where the NP trail intersects with the old road heading easterly toward Carry Pond. The ending point is the point near the east end of Blue Ridge where the proposed new route intersects the existing trail northwest of the former McCane's Resort. All distances were derived by map measurement of hypothetical routes and are presented for general comparison purposes only.*

[2]*The Moose River Plains Wild Forest UMP includes proposals to gate the Payne Brook, Cellar Pond, Wakely Mountain and Gould roads.*

[3]*This category includes the Wilson Ridge road, used for motor vehicle access by members of the Little Moose Lake Club, and roads on private lands north and east of Sugarloaf Mountain. The Wilson Ridge road will no longer be used after the lease expires in 2006.*

[4]*Mileage figures refer to lengths of trail on Forest Preserve land.*

Mileage on Private Lands Other Than State Right-of-Way[5]	0.8	1	1	0	0	0	0	0	0	0	0	0	0

[1]The road crossing private lands from Cedar River Road to Forest Preserve land north of Sugarloaf Mountain is subject to a deeded right-of-way.

Here is a summary of the alternatives removed from further consideration and the reasons for their elimination.

ALTERNATIVE 0: The fact that the present route of the NP Trail includes an extensive road walk is the reason an alternative location is being sought. Its other major downfall is its crossing of private lands. Because the new owner of the former McCane's Resort wants the trail moved off the property, this alternative is no longer possible.

ALTERNATIVES 1 AND 1B : Both routes cross private lands and use approximately three miles of a designated snowmobile trail.

ALTERNATIVES 3 AND 3B: The Gould road routes are similar to alternatives 2 and 2b, except that they include longer walks on Cedar River Road: 1.1 miles rather than 0.3 miles.

ALTERNATIVE 4: The Wilson Ridge route and its variations would add the greatest length to the trail - almost five miles over the existing route. They would involve 1.4 miles on Cedar River Road and almost four miles on a road providing motor vehicle access to the Little Moose Lake Club, though the use of the road will cease when the lease expires in 2006.

ALTERNATIVE 6: This is a possible variation of alternative 5 (considering alternative 4 to be out of the running). Since the ridge trail would involve a climb to the summit of Wakely Mountain, the level of difficulty for through-hikers wearing heavy backpacks would be sufficiently high to pose a significant obstacle. The climb might be worth the exertion if there were significant view opportunities along the ridge, but preliminary reconnaissance indicated that there are few breaks in the dense forest cover.

ALTERNATIVE 7: Also a possible variation of alternative 5, the route on the west side of Wakely and Metcalf Mountains would penetrate farthest into the trailless interior of the Blue Ridge Wilderness. It appears from available information that the route would traverse dense spruce-fir forest and skirt extensive wetlands, making it difficult to construct and less attractive for hikers. With its northern exposure, snow cover would remain on the trail longer in the spring than on other alternative routes.

To assist in the comparison of the three finalists, existing records of rare animals, rare plants, significant natural communities and significant habitats were reviewed for occurrences in the vicinity. The only occurrence recorded was the presence of loons on Cedar River Flow. The significant habitats identified were historical deer wintering areas and the Adirondack Subalpine Forest Bird Conservation Area (BCA), which includes all lands in Hamilton County above 2,800 feet. There is a historical deer wintering area south and east of Stephens Pond, one surrounding Payne Brook and extending east of the Cedar River, one along the southwestern shore of Cedar River Flow, and one from the south shore southward surrounding the Cedar River. The discussion of each alternative includes references to these occurrences.

ALTERNATIVE 2B: By following new trail to be constructed on the east side of Cedar River Flow, route 2b nearly eliminates the Cedar River Road walk and reduces the mileage on old roads involved in alternatives 2 and 5. At only a half mile longer than the existing route, this is the shortest of all the other alternatives.[1] It also passes through the staging and camping area at Wakely Dam.

The section of new trail that would be constructed on the east side of the Flow would have the long-term benefits of a route created as a hiking trail. It would provide the opportunity for local hiking on a loop trail around the Flow. The trail would be located on the periphery of the West Canada Lake Wilderness, thereby eliminating the potential for conflicts with other types of trail use and affording access for hunting and exploration without drawing large numbers of visitors into the wilderness interior.

The part of the route on the east side of Cedar River Flow would run along the northern edge of a historical deer wintering area extending south of the Flow. The part of the route along the foot of the east end of Blue Ridge, which is identical with alternatives 2 and 5, would run along the western edge of the historical deer wintering area south of Stephens Pond. This route might have less potential impact on the area near Stephens Pond than the existing route, which cuts across one lobe of it. In general however, because winter use of the route is likely to be relatively low, use impacts to deer wintering areas are not likely to be significant. The entire route would lie below an elevation of 2,800 feet, and so outside the Adirondack Subalpine Forest Bird Conservation Area, with the possible exception of a short segment skirting private lands on the northeast end of Metcalf Mountain.

The main drawback of alternative 2b is the amount of new construction in wilderness needed to create the trail on the east side of the Flow. It would require almost two miles more of total new trail construction than alternative 2 and three-quarters of a mile more than alternative 5. The route of the east-side trail has not been scouted. It could follow an old road from Wakely Dam to the area of Buell Brook. However, a significant detour may be required to avoid expansive wetlands flanking the brook. The route probably would require a fairly large foot bridge over the Cedar River at the south end of the Flow. The river at the proposed bridge location is classified scenic. Bridges across other streams crossing the route are likely to be needed.

Because a route on the west side has long been used, the construction of a new route would only be justified to avoid major problems with the existing route. Though there are disadvantages, their magnitude does not appear sufficient to necessitate a major relocation. At present, about a tenth of a mile of the existing trail along the west side of the Flow is available for motor vehicle use by members of the Little Moose Lake Club. But their use will cease when the Club's lease expires in 2006. The MRPWF UMP will propose that the west side route remain open to mountain bicycles and horses, and that

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[1]*All distances were derived by map measurement of routes that have not been laid out in the field. Therefore, the difference in overall length between alternatives 2 and 2b should be considered negligible.*

the Wilson Ridge Road be opened to motor vehicle use by people with disabilities holding permits under policy CP-3. However, use by mountain bicycles and horses has been relatively light, and the modest increases in use that may occur as a result of UMP designation is not expected to result in significant conflicts with hikers. Motor vehicle use under CP-3 is also expected to be light, and the route will include only the same tenth of a mile presently used by members of the Little Moose Lake Club. The west side route is a former road and does not have the character of a foot trail. But as the route continues to be maintained to trail standards, it will take on more trail character over time.

Though there would be benefits to the creation of a new trail along the east side of Cedar River Flow, they do not appear to be to sufficiently great to justify the relocation of the existing west-side route. The east side trail could be revisited in the West Canada Lake Wilderness UMP.

ALTERNATIVE 5: The greatest benefit of this route is that it totally eliminates the walk on Cedar River Road. The part of the route along the southeast flank of Wakely Mountain might include opportunities for views. The route would link directly with a proposed new trail up Wakely Mountain. It would continue to follow the existing route along the west side of Cedar River Flow. The part of the route along the foot of the east end of Blue Ridge would run along the western edge of the historical deer wintering area south of Stephens Pond, as in alternatives 2 and 2b. Though it is unlikely that the low levels of anticipated winter trail use would have a significant impact on wintering deer, this route would have less potential impact on the area than the existing route, which cuts across one lobe of it. The entire route would lie below an elevation of 2,800 feet, and so outside the Adirondack Subalpine Forest Bird Conservation Area (BCA), with the possible exception of a short segment skirting private lands on the northeast end of Metcalf Mountain.

This route would pass along the edge of a historical deer wintering area along the southwestern shore of Cedar River Flow, as does the existing route. In addition, approximately two miles of it would pass through a historical deer wintering area surrounding Payne Brook north of Limekiln Lake-Cedar River Road. However, because winter plowing on Cedar River Road ends more than five miles before the Payne Brook road intersection, winter use of this trail segment would be limited to a relatively low number of through-hikers, who would have a negligible impact on wintering deer.

The main problem with alternative 5 is that it would exceed the length of the existing route by over two and a half miles, and it would be longer than alternatives 2 and 2b by two miles or more. In addition, through-hikers would have to make a detour of about one and a half miles to the staging and camping area at Wakely Dam. With this route in place, those seeking a quicker route would be able to take the route of alternative 2 along Limekiln Lake-Cedar River Road to Wakely Dam, up the Wakely Mountain trail and beyond, since this route would be assembled through the construction of alternative 5. Nevertheless, the benefits of removing a mere quarter-mile walk on Cedar River Road and the possible views from the southeasterly flank of Wakely are not considered sufficiently powerful to overcome the addition of two miles to the length of the NP Trail.

ALTERNATIVE 2 - THE PREFERRED ALTERNATIVE: Alternative 2 would be the easiest of the three finalists to execute. Following the existing route along the west side of Cedar River Flow, only a little more than five miles of new trail would have to be built, so the initial cost of the route would be the least. It ranks among the shortest of the alternatives, adding only slightly more than a half mile to the length of the existing route. The new route would pass through the staging and camping area at Wakely Dam. The route of this alternative passes along the edge of a historical deer wintering area along the southwestern shore of Cedar River Flow and through the deer wintering area on the north end of the flow, as does the existing route. The part of the route along the foot of the east end of Blue Ridge would run along the western edge of the historical deer wintering area south of Stephens Pond, as with alternatives 2b and 5. However, this route would have less potential impact on the area than the existing route, which cuts across one lobe of it. In general, because winter trail use would be light, impacts to wintering deer would be minimal. The entire route would lie below an elevation of 2,800 feet, and so outside the Adirondack Subalpine Forest Bird Conservation Area (BCA), with the possible exception of a short segment skirting private lands on the northeast end of Metcalf Mountain.

In comparison with alternative 2b, this route includes more mileage on former and active roads that do not have foot trail character. However, as described in the discussion of alternative 2b, the drawbacks of continuing to use the existing west-side route do not appear sufficiently significant to justify the construction of a new trail on the east side that has the same beginning and ending points and does not differ significantly in length. The benefits of alternative 2, along with its relatively few drawbacks in comparison with the others, led the planning team to select it as the preferred alternative.

Least Cost Path Analysis

Least cost path analysis is a GIS tool that locates the path between two locations that costs the least to traverse, where cost is a function of time, distance or some other criteria defined by the user. Staff of the UMP-GIS Consortium have developed a least cost path tool to assist in the development of management proposals for UMPs. The tool was not available when the original NPT alternative route analysis was conducted. It became available before this plan was finalized, and so was used to test the results of the original analysis.

In applying the least cost path tool, cost values were assigned which reflected the objectives that shaped the original analysis:

1. Minimize the length of the trail on roads open to motor vehicle use.
2. Minimize the length of the trail open to conflicting recreational uses.
3. Maximize the length of the trail on State land rather than private land subject to uncertain landowner permission or activities that would affect the scenic qualities of the trail corridor.
4. Minimize the total length of the trail.

5. Find a trail location that minimizes the potential for impacts on soils, wetlands, significant habitats and rare species.
6. Use old roads for the trail route to minimize the cost of trail construction, but build new trail if desirable to reduce trail length, reduce significant use conflicts, avoid wet areas or significantly improve the hiking experience.
7. For ease of walking, minimize the length of trail in steep sections and minimize variation in elevation.

When confined to the analysis of the alternative routes originally considered, the tool selected alternative 2, the preferred alternative. The tool was then applied to find a route not confined to the original alternatives. Two sets of costs were used.

The initial analysis was designed to find the best possible route without considering the cost of new trail construction. In this analysis, higher costs were assigned to wetlands, highly erodible areas, high-slope areas and potential deer yard wintering areas. The resulting least cost path is shown as a blue dotted line (LCP1) in Appendix 20, Map 4. This path follows UMP alternative 2 fairly closely, with several minor deviations to avoid wetlands, steep slopes or more circuitous routes.

The second analysis included the cost of new trail construction. This model used the same parameters as LPT1, but assigned the highest cost to roadless areas and the least cost to existing trails that had a trail-like character. The results from this analysis (LCP2) is shown as a red dotted line in Appendix 20, Map 4. LCP2 follows UMP alternative 2 very closely, with only one major difference in the segment about a mile north of Cedar River Flow. The major reason for this difference is that alternative 2 follows a somewhat circuitous route along the Wakely Mountain trail and then the Gould road. However, because LCP2 crosses a wetland in this stretch, alternative 2 may be a better choice for this section of trail.

APPENDIX 15 – ALTERNATIVES: SAGAMORE RUINS

In the analysis of the following alternatives for the treatment of the Sagamore ruins, it is assumed that the former carriage roads in the vicinity of Sagamore will be marked and maintained as foot trails.

ALTERNATIVE 1: Allow the ruins of the structures and improvements within the bounds of the former Sagamore estate to remain, subject to the forces of nature. Take the minimum action needed to remove public safety hazards and leave the valvehouse and powerhouse open for public viewing (the "no action" alternative).

Advantages

1. The ruins of historic structures that are part of Sagamore's National Historic Landmark designation are retained.
2. The presence of the ruins provides the opportunity for the public to observe the effects of the forces of nature on human works. The ruins are available for Sagamore's interpretive programs.
3. Because the ruins are within a half-mile of the wilderness boundary, the impact of their presence on wilderness visitors is likely to be less than if they were farther in the interior.
4. The retention of the ruins conforms with provisions of the ECL and PRHPL which promote the preservation and interpretation of historic resources and allows them to be maintained under certain circumstances.
5. There is minimal cost to the State and minimal environmental disturbance.

Disadvantages

1. The presence of the ruins diminishes the wilderness character of the area.
2. The retention of the dam, valvehouse and powerhouse does not comply with the APSLMP prohibition of nonconforming uses in wilderness. The dam does not comply because it has been breached for many years and therefore is not on an "established impoundment."
3. The ruins pose public safety hazards and expose the Department to liability, though this disadvantage could be addressed through minimal actions to secure the ruins.

ALTERNATIVE 2: Remove the entire hydroelectric complex, including the dam, valvehouse, powerhouse and penstock. Because motor vehicles may not be used in wilderness, demolish the ruins using explosives, motorized equipment and hand tools. Remove rubble using horse-drawn wagons or helicopters with slings. Restore the sites to natural conditions.

Advantages

1. The removal of the hydroelectric ruins restores the wilderness character of the area.
2. The removal of the valvehouse and powerhouse complies with the APSLMP requirement that nonconforming uses be removed from wilderness. Because the damis not on an "established impoundment," its removal also complies with this provision.
3. The removal of the dam restores the natural flow of South Inlet.
4. The removal of the ruins is not prohibited by the ECL or PRHPL.
5. The removal of the ruins eliminates public safety hazards and any Department liability exposure, though hazards could be addressed through minimal actions to secure the ruins without removing them.
6. The hardware in the valvehouse and powerhouse could be transferred to a suitable location off State land for use in an interpretive display.

Disadvantages

1. The ruins of historic structures that are part of Sagamore's National Historic Landmark designation are destroyed.
2. The removal of the ruins eliminates the opportunity for the public to observe the effects of the forces of nature on human works. The ruins no longer are available for Sagamore's interpretive programs.
3. The demolition and removal of the ruins without the use of motor vehicles is a substantial undertaking causing significant disturbance to the environment.
4. The cost of demolishing and removing the ruins is substantial.

ALTERNATIVE 2B: Demolish the dam, valvehouse and powerhouse. Leave the rubble on site.

Advantages

1. The demolition of the hydroelectric ruins partially restores the wilderness character of the area.
2. The demolition of the dam, valvehouse and powerhouse partially complies with the APSLMP requirement that nonconforming uses be removed from wilderness.
3. The removal of the dam from its position in the river restores the natural flow of South Inlet.
4. The demolition of the ruins reduces public safety hazards, though leaving the rubble on site could pose a different hazard.
5. The hardware in the valvehouse and powerhouse could be transferred to a suitable location off State land for use in an interpretive display.

Disadvantages

1. The ruins of historic structures that are part of Sagamore's National Historic Landmark designation are destroyed.
2. The demolition of the ruins eliminates the opportunity for the public to observe the effects of the forces of nature on human works. The ruins no longer are available for Sagamore's interpretive programs.

3. The demolition of the ruins without the use of motor vehicles is a substantial undertaking causing significant disturbance to the environment, though less than if the rubble were to be removed.
4. The cost of demolishing the ruins is substantial, though much less than the cost of demolition combined with removal.

ALTERNATIVE 3: Allow the valvehouse and powerhouse to remain, subject to the forces of nature. Take the minimum action needed to remove public safety hazards and leave the valvehouse and powerhouse open for public viewing. Demolish the dam using motorized equipment and hand tools. Remove rubble using horse-drawn wagons or helicopters with slings, or dispose of the rubble near the dam site. Restore the dam site to natural conditions.

Advantages

1. The removal of the dam restores the natural flow and appearance of South Inlet.
2. The ruins of historic ruins that are part of Sagamore's National Historic Landmark designation are retained, except for the dam.
3. The presence of the valvehouse and powerhouse ruins provides the opportunity for the public to observe the effects of the forces of nature on human works. The ruins are available for Sagamore's interpretive programs.
4. Because the ruins are within a half-mile of the wilderness boundary, the impact of their presence on wilderness visitors is likely to be less than if they were farther in the interior.
5. The retention of the valvehouse and powerhouse ruins conforms with provisions of the ECL and PRHPL which promote the preservation and interpretation of historic resources and allows them to be maintained under certain circumstances.
6. The cost to the State and the level of environmental disturbance are less than they would be if the valvehouse and powerhouse also were removed.

Disadvantages

1. It appears that the limited ecological benefits of dam removal would not justify the costs and environmental impacts of a new disturbance to the river system.
2. The removal of part of the Sagamore hydroelectric complex eliminates a component of a National Historic Landmark and diminishes the interpretive value of the hydroelectric complex.
3. The presence of the ruins of the valvehouse and powerhouse diminishes the wilderness character of the area.
4. The retention of the valvehouse and powerhouse does not comply with the APSLMP requirement that nonconforming uses be removed from wilderness.
5. The valvehouse and powerhouse ruins pose public safety hazards and expose the Department to liability, though this disadvantage could be addressed through minimal actions to secure the ruins.

Discussion and Selection of a Preferred Alternative

The alternatives chosen for analysis are considered to represent the full range of possibilities within the context of applicable laws and policies governing wilderness areas in the Forest Preserve.

ALTERNATIVE 2 would do the most to restore the area of the Sagamore hydroelectric ruins to a wilderness condition by removing the entire complex. It would most readily be seen as an action to comply with the APSLMP guidelines requiring that non-conforming uses be removed from wilderness. However, this action would have the substantial disadvantages of the cost and disturbance of the removal activity and the elimination of significant components of Sagamore's National Historic Landmark designation considered vital to Sagamore's educational mission and interpretive programs. The dam is made of concrete and the valvehouse and powerhouse are constructed of concrete and brick. Because of the APSLMP prohibition against the use of motor vehicles, the removal process would present substantial technical difficulties requiring costly solutions. It is likely that the process of demolishing the valvehouse and powerhouse would begin with the use of explosives. Detonation could result in the scattering of debris and damage to vegetation. The reduction of large pieces of the dam and the two buildings to sizes that could be moved by hand into horse carts or helicopter slings, if helicopter access proved possible, probably would be a lengthy and arduous process involving the use of hand tools and small power equipment. It would be difficult to protect the large steel turbines and other hardware, proposed by some for removal to a suitable site as part of an interpretive display, from damage during building demolition. The removal of the hardware by helicopter would be possible but difficult. Considering the seclusion of the ruins, the low level of use anticipated on the Powerhouse trail, and the minimal impact of the ruins on the operation of natural processes, the benefits of removal do not appear sufficient to justify the environmental and financial costs and the loss of a significant historic resource.

ALTERNATIVE 2B is the same as alternative 2, except that after the ruins are demolished, the rubble is left on site. This alternative would at least partially restore the natural appearance of the area. It is possible that large amounts of soil could be hauled in or excavated from the local area to allow the rubble to be covered and vegetated. However, because the ruins are largely secluded from public view, the benefits of this action do not appear sufficient to justify the destruction of significant components of a National Historic Landmark.

ALTERNATIVE 3 is a modification of alternative 1. It removes the dam, but allows the valvehouse and powerhouse to remain in place, subject to the forces of nature. The assumption behind this alternative is that the dam interferes with the operation of natural processes more than the two buildings, and that its removal would restore the natural flow and appearance of the river. Undoubtedly the dam is visible to anglers who fish the river. However, the ecological benefits of its removal are questionable. The dam has been breached for many years, and water flows freely around it on both sides. The dam does not serve as a barrier for the movement of fish. The pool impounded by the dam covers

less than an acre. The head of the dam is approximately three or four feet, about the size of the average beaver dam. Soils and the populations of plants and animals in and around the pool impounded by the dam have stabilized. It does not appear that the benefits of removing the dam are sufficient to justify the environmental and financial costs and the loss of an integral part of a significant historic resource.

ALTERNATIVE 1 is the preferred alternative. The ruins of the structures formerly part of the estate of Camp Sagamore serve as concrete examples of the effects of natural processes on human works, and stand as symbols of the historical context of the creation of the Forest Preserve. They are considered by Sagamore Institute to be important assets for Sagamore's educational mission and interpretive programs. Their presence has minimal impact on the operation of natural processes in the area. Indeed, a key theme of Sagamore's interpretive message is the powerful influence that natural processes have in returning human works to natural conditions over time. The dam is stable in its ruined state and no longer impedes the natural flow of South Inlet or the movement of fish. The ruins of the hydroelectric structures have minimal visual impact because of their distance from roads and other vantage points, the screening effects of their forested setting, and the light use of the nearby Powerhouse trail. Because the hydroelectric ruins are located within a half-mile of the wilderness boundary, the impacts of their presence on the perceptions of wilderness visitors are likely to be less than they would be if the ruins were located farther in the interior. The minimal safety hazards posed by the unsecured condition of the ruins could be adequately addressed with minimal expense.

The ecological benefits of the removal of the Sagamore hydroelectric ruins would be minimal, and the negative impacts of the existence of the ruins on the wilderness character of the BRW would be limited and localized. Therefore, it appears that the benefits would not be sufficient to justify the financial cost and environmental disturbance involved in the demolition and removal of the ruins.

Historic structures are not listed as conforming structures in the APSLMP guidelines for wilderness. However, the definition of wilderness provides that a wilderness area "may also contain ecological, geological or other features of scientific, educational, scenic or historical value." In addition, the Special Management Guidelines section provides for special management of certain parcels of land, such as "historic buildings, structures or sites not part of a designated historic area." The ruins are included in Sagamore's National Historic Landmark designation and are listed on the State and National Registers of Historic Places. Therefore, their retention would conform with the purposes of the State Historic Preservation Act. However, because it is proposed that the ruins be retained without restoration or maintenance, §14.09 requires that the Department consult with OPRHP concerning the potential impacts of the proposal on the quality of the ruins. The retention of the ruins also would comply with the provisions of ECL §9-0109. It would comply with paragraph a. because the ruins are listed on the State Register of Historic Places. It would comply with paragraph b. because, through the interpretive programs of Sagamore, the ruins would serve the purpose of increasing public understanding of the Forest Preserve, and this purpose would be served without disturbing the existing degree of wild forest character in the area of the ruins. It would

comply with paragraph c. because the ruins would be retained subject to the full operation of natural processes and without the cutting of trees or alteration of the ruin sites to any degree beyond the minimal modifications necessary to address public safety hazards.

APPENDIX 16 – ALTERNATIVES: WAKELY MOUNTAIN FIRE TOWER COMPLEX

The following six alternatives for the treatment of the Wakely Mountain fire tower complex were analyzed.

ALTERNATIVE 1: Do nothing to the Wakely Mountain fire tower complex. Retain the primitive area classification (the "no action" alternative).

Advantages

1. A historic fire tower is retained.
2. The scenic vista on the Wakely Mountain summit is retained as long as the tower holds up and remains open to public use.
3. This alternative is the least expensive because no materials or labor are used.
4. No trees are cut in the WMPA.

Disadvantages

1. Radio coverage in areas of the BRW, MRPWF, and WCLW remains inadequate or non-existent.
2. Deteriorating facilities are a safety hazard and will some day be no more than a historic eyesore.
3. The APSLMP requirement that the area be reclassified to wilderness once the tower is no longer needed is not implemented.

ALTERNATIVE 2: Remove the Wakely Mountain fire tower, observer cabin, and helipad. Reclassify the WMPA to wilderness and incorporate it into the BRW.

Advantages

1. The wilderness character of the WMPA is improved by the removal of structures.
2. The removal of the structures eliminates them as a safety hazard.
3. Because there is no longer a vista from the summit, public use impacts are significantly reduced.
4. No trees are cut in the WMPA.

Disadvantages

1. A historic fire tower is lost.
2. Radio coverage in areas of the BRW, MRPWF, and WCLW remains inadequate or nonexistent.
3. The scenic vista on Wakely Mountain is eliminated unless natural disturbances remove the summit's vegetative cover. As a result, a mountain summit destination for hikers with the potential to draw use from the heavily-used High Peaks region is eliminated.

ALTERNATIVE 3: Restore the Wakely Mountain fire tower for occasional use as a temporary radio repeater platform when needed by the Department for fire suppression, law enforcement and search and rescue purposes, but otherwise close the tower to public access. Remove the observer cabin. Gate the tower at the base and board up the cab to preserve it. Reconstruct the helipad to maintain helicopter access to the summit for tower maintenance and the temporary installation of portable radio repeaters during forest fire and search and rescue emergencies. In order for helicopters to use the helipad, remove trees (mostly balsam fir and red spruce two to six inches diameter at breast height) within a 50-foot radius of the center of the helipad (0.18 acres). Retain the primitive area classification.

Advantages

1. A historic fire tower is retained.
2. The tower can be used as a temporary radio repeater and observation platform when needed by the Department during forest fires and searches.
3. The tower is secured and is less of a safety hazard because public use is prohibited.
4. Without the scenic vista provided by the fire tower, public use impacts are significantly reduced.
5. The removal of the observer cabin reduces public safety concerns and maintenance costs.

Disadvantages

1. Radio coverage in areas of the BRW, MRPWF, and WCLW remains inadequate or non-existent except when the portable repeater is installed.
2. The scenic vista on Wakely Mountain is eliminated unless natural disturbances remove the summit's vegetative cover. As a result, a mountain summit destination for hikers with the potential to draw use from the heavily-used High Peaks region is eliminated.
3. A clearing of 0.18 acres is maintained to accommodate the landing of helicopters.
4. The removal of the observer cabin eliminates a structure historically associated with the fire tower. The cabin is not available for potential use in the interpretation of the history of the fire tower site.

ALTERNATIVE 4: Restore the fire tower and install a permanent radio repeater in the tower's cab, but close the tower to public access and remove the observer cabin. Gate the tower at the base and board up the cab to preserve it. Reconstruct the helipad to maintain helicopter access to the summit for maintenance of the tower and the radio repeater. In order for helicopters to use the helipad, remove trees (mostly balsam fir and red spruce two to six inches diameter at breast height) within a 50-foot radius of the center of the helipad (0.18 acres). Retain the primitive area classification.

Advantages

1. A historic fire tower is retained.
2. The radio coverage in the BRW, MRPWF, and WCLW is permanently improved.
3. The tower can still be used for fire observation in emergencies, especially at night and at other times when observation fights are not available.
4. Without the scenic vista provided by the fire tower, public use impacts are significantly reduced.
5. The removal of the observer cabin reduces public safety concerns and maintenance costs.

Disadvantages

1. The scenic vista on Wakely Mountain is largely eliminated unless natural disturbances remove the summit's vegetative cover. As a result, a mountain summit destination for hikers with the potential to draw use from the heavily-used High Peaks region is eliminated.
2. A clearing of 0.18 acres is maintained to accommodate the landing of helicopters.
3. The removal of the observer cabin eliminates a structure historically associated with the fire tower. The cabin is not available for potential use in the interpretation of the history of the fire tower site.

ALTERNATIVE 5: Restore the Wakely Mountain fire tower and observer cabin, allow public access to the fire tower, but do not install radio equipment. Reconstruct the helipad to maintain helicopter access to the summit for tower maintenance and the temporary installation of radio repeaters during forest fire or search and rescue emergencies. In order for helicopters to use the helipad, remove trees (mostly balsam fir and red spruce two to six inches diameter at breast height) within a 50-foot radius of the center of the helipad (0.18 acres). Retain the primitive area classification.

Advantages

1. A historic fire tower is retained in original condition, without the addition of radio equipment.
2. The tower can be used as a temporary radio repeater platform when needed by the Department.
3. The scenic vista on the Wakely Mountain summit is retained and enhanced as a destination for hikers with the potential to draw use from the heavily-used High Peaks region.
4. The fire tower complex may be adopted by a "friends group" for maintenance and interpretive purposes.
5. The retention of the observer cabin keeps a structure historically associated with the fire tower in place. The cabin is available for potential use in the interpretation of the history of the fire tower site.

Disadvantages

1. Radio coverage in the BRW, MRPWF, and WCLW remains incomplete or nonexistent in some areas except when the portable repeater is installed.
2. A restored fire tower complex open to the public attracts increased use of the WMPA and results in greater social, physical, and biological impacts.
3. A clearing of 0.18 acres is maintained to accommodate the landing of helicopters.

ALTERNATIVE 6: Restore the fire tower, install a radio repeater in the cab of the tower and leave the tower open to public access. Remove the observer cabin and helipad. Retain the primitive area classification.

Advantages

1. A historic fire tower is retained.
2. The radio coverage in the BRW, MRPWF, and WCLW is permanently improved.
3. The tower is available for use for fire observation.
4. The scenic vista on the Wakely Mountain summit is retained and enhanced as a destination for hikers with the potential to draw use from the heavily-used High Peaks region.
5. The fire tower may be adopted by a "friends group" for maintenance and interpretive purposes.
6. The removal of the observer cabin and helipad eliminates the existence of structures in a primitive area intended to become wilderness and reduces long-term maintenance costs. A clearing need not be maintained for the landing of helicopters.

Disadvantages

1. The removal of the observer cabin eliminates a structure historically associated with the fire tower. The cabin is not available for potential use in the interpretation of the history of the fire tower site.
2. Without the ability to gain access to the tower by helicopter, radio technicians are required to make emergency repairs to the fire tower or radio equipment by climbing to the tower on foot, which may not be feasible in winter. The inability to make emergency repairs could threaten the success of ongoing search and rescue operations. The removal of the helipad eliminates a structure historically associated with the fire tower.
3. A restored fire tower open to the public attracts increased use of the WMPA and results in greater social, physical, and biological impacts.

ALTERNATIVE 7: Restore the fire tower, install a radio repeater in the cab of the tower and leave the tower open to public access. Retain the observer cabin. Reconstruct the helipad to maintain helicopter access to the summit for the maintenance of the tower and the radio repeater. In order for helicopters to use the helipad, remove trees (mostly

balsam fir and red spruce two to six inches diameter at breast height) within a 50-foot radius of the center of the helipad (0.18 acres). Retain the primitive area classification.

Advantages

1. A historic fire tower is retained.
2. The radio coverage in the BRW, MRPWF, and WCLW is permanently improved.
3. The tower is available for use for fire observation.
4. The scenic vista on the Wakely Mountain summit is retained and enhanced as a destination for hikers with the potential to draw use from the heavily-used High Peaks region.
5. The fire tower complex may be adopted by a "friends group" for maintenance and interpretive purposes.
6. The retention of the observer cabin keeps a structure historically associated with the fire tower in place. The cabin is available for potential use in the interpretation of the history of the fire tower site.

Disadvantages

1. A restored fire tower complex open to the public attracts increased use of the WMPA and results in greater social, physical, and biological impacts.
2. A clearing of 0.18 acres is maintained to accommodate the landing of helicopters.

Discussion and Selection of a Preferred Alternative

ALTERNATIVE 1, the "no action" alternative, would leave the future of the fire tower complex in doubt. The tower would no longer be in use as a fire observation platform, would have no proposed utility for Forest Preserve management and would be allowed to become increasingly unsafe for public use. Unmaintained structures would fall into disrepair and pose a public safety hazard. This alternative suggests that the fire tower complex is no longer needed except for historic preservation purposes. By leaving the fire tower complex intact without proposing any use for the structures, alternative 1 does not comply with the APSLMP.

ALTERNATIVE 2 would remove the fire tower and associated structures and allow the WMPA to be incorporated within the BRW. The assumption behind the alternative is that the fire tower complex is no longer needed. However, by preventing the installation of a radio repeater on the Wakely Mountain summit, this action would preclude significant improvements in radio communications in the MRPWF, BRW and WCLW. With the removal of the tower, there would be no views from the summit. As a result, it is likely that use levels would decrease to that point that the Department would consider closing the Wakely Mountain trail. Though there are impacts from trail use, they are confined to soil erosion typical of mountain trails and impacts to soils and vegetation in a limited area on the summit. They are not considered sufficiently significant to justify the elimination of a significant recreational opportunity that could serve as an alternative to heavily-used High Peaks trails. This alternative would remove a fire tower considered to

be one of the most historically significant in the Adirondacks. Public comments have been nearly unanimous in support of retaining the fire tower for its recreational and historic preservation values.

ALTERNATIVE 3 would retain the tower for possible intermittent use for emergency communications purposes, with the added benefit that a historic structure would be maintained intact. It is likely that the emergency use of the tower as a temporary repeater station by a person with a portable radio would be infrequent. It would be hard to justify the retention and maintenance of the tower for infrequent emergency use. This alternative would not remedy day-to-day radio communications problems. Because the tower would be closed to the public, there would be no views from the summit. Use levels would decrease to the point that the trail might be closed. The benefit of reducing use impacts would be outweighed by the loss of a significant alternative hiking destination. This alternative would not satisfy most people who have expressed interest in the restoration of the tower, because for them the major purpose of restoration is public access.

ALTERNATIVE 4 would address existing radio communications problems and preserve the tower as a historic structure, subject to the modifications that would have to be made to accommodate radio equipment. Though one of the original purposes of the tower–to aid in backcountry communications–would be realized, the prevention of recreational access to the tower would eliminate the only available summit vista and, for most people, the reason to climb to the summit. For most of those who have submitted comments, the prevention of access also would take away much of the purpose of restoring the tower. The benefit of reducing use impacts would be outweighed by the loss of a significant alternative hiking destination. Available technology would allow the radio equipment to be configured in such a way that the tower and cab could safely be opened to public use. The additional level of safety for the equipment that would be realized by closing the tower to the public would not be sufficient to justify the loss of the recreational value of the tower.

ALTERNATIVE 5 would restore the fire tower complex, emphasizing its value as a recreational destination and preserving it as a historic structure, along with the observer cabin. Though the current cabin was constructed in 1972 or 1973, a cabin has existed on the site since approximately 1911 and has a strong association with the tower in the minds of historic preservationist advocates. The structure of the tower would not be modified to accommodate radio equipment. The value of the tower as an alternative destination for hikers who might otherwise turn to the heavily-used High Peaks region would be enhanced. It is likely that the tower complex would be adopted by a friends group, who might add to the value of the summit as a hiking destination by providing interpretive staff. This alternative would likely be most favorably received by members of the public who favor the retention of the tower. However, though the tower would be available as a platform for emergency communications, this alternative would not address the significant day-to-day radio communications problems in the MRPWF, BRW and WCLW.

ALTERNATIVE 6 would restore the Wakely Mountain fire tower for radio communications and full public recreational access. Radio equipment would be secured against vandalism and configured to permit safe public access to the tower cab without making permanent alterations to the historic tower structure. However, the removal of the observer cabin would take away a structure historically associated with the tower and make it unavailable for possible use by a friends group interested in restoring, maintaining and interpreting the tower complex. Though the removal of the observer cabin would reduce long-term maintenance costs for the Department, such costs likely would be minimal. Unlike other fire tower observer cabins, the Wakely cabin has sustained little vandalism. It is structurally sound, needing little more than cleaning and painting. It is likely that any needed work would be performed by volunteers.

The radio equipment, batteries and solar panels proposed for installation in the tower are too bulky and heavy to be transported on foot. Therefore, they would have to be transported by helicopter. The existing helipad is unsound and could not safely sustain the weight of a helicopter. The ground surface in the area is not sufficiently level to allow a helicopter to land safely. Without the reconstruction of the helipad, therefore, the expensive and delicate equipment would have to be dropped in a sling, exposing it to a significant risk of damage. Similarly, for routine maintenance and emergency repairs, tools and equipment would have to be dropped from a helicopter by sling, while radio technicians and other maintenance staff would be required to hike at least two miles to the summit from the end of the road in the MRPWF, which is to be closed to the public but made available for administrative motor vehicle use. A Department radio technician must occasionally test and repair the radio equipment with a service monitor, which is a piece of expensive and delicate electronic diagnostic equipment. It would be subjected to a significant risk of damage if the helipad were not available to allow a helicopter to land. For maintenance work in winter, since Cedar River Road is plowed only to a point more than four miles from the trailhead, snowmobiles would have to be used for access to the point where foot travel would begin. Depending on conditions, a winter hike to the summit might not be feasible for maintenance staff. The inability to make timely repairs to radio equipment could threaten the success of ongoing search and rescue operations.

ALTERNATIVE 7 is the preferred alternative. It would retain all components of the Wakely Mountain fire tower complex for the combined purposes of radio communications, recreation, education and historic preservation. The fire tower would be restored. Because of advancements in technology, the use of the tower for radio communications would not significantly detract from public use and enjoyment. Needed radio equipment, including batteries and solar panels, could be configured to permit safe public access to the tower cab without subjecting them to undue risk of vandalism. Some public comments have included expressions of concern that the attachment of solar panels would affect the tower's historic appearance. The installation of the equipment for emergency and day-to-day communications is considered sufficiently important to justify some impacts to the use and appearance of the tower. However, because all components would be mounted on the tower, overall the installation would have less visual impact than other systems, which have included a separate tower for a wind generator and a separate building for the radio and batteries. The installation of the equipment would not

involve the removal or alteration of the original components of the tower structure. Because of the distance of the tower from highways and communities, added radio equipment would not have a significant visual impact on those distant vantage points

The observer cabin would be cleaned up and secured. The retention of the cabin to keep the fire tower complex intact is important to fire tower advocates, and it is likely that a friends group would provide most of the labor needed for restoration. It would likely be used by the friends group in the interpretation of the fire tower complex. In the context of a site occupied by a restored fire tower likely to be the object of most hikes to the summit, the presence of the cabin probably would not be as objectionable to visitors as it would be in a more isolated location.

The ground surface in the area of the existing helipad is not sufficiently level to allow a helicopter to land safely. As explained in the discussion of alternative 6, the reconstruction of the helipad would permit ready long-term access to the tower site, allowing for the safe and expeditious transport of radio equipment and material for the restoration and maintenance of the tower and cabin, along with staff and tools. The helipad and the small clearing that would have to be maintained around it would not be visible from surrounding areas. The helipad is located at the end of a spur trail, separated from the summit trail by a dense spruce-fir forest. Therefore, it is only visible from the fire tower and from the air. The 50-foot radius clearing needed around the helipad would not have a significant impact on Bicknell’s thrush. A recent study of the use of Vermont ski areas by Bicknell's thrush (Rimmer et. al. 2004) found few significant differences in population and reproductive parameters between areas developed for skiing and natural forests. The researchers found no significant difference in nest predation rates between ski area and natural forest plots, even though nest densities were higher near ski trail edges. At the helipad site, the potential for predation is likely to be very limited, since it is unlikely that predator species will be found near a small, isolated opening near a mountain summit surrounded by an extensive relatively unbroken forest. The limited potential for fragmentation effects in the small area of the helipad site will be minimized by leaving spruce and fir trees up to six feet tall within the cleared area except in the area occupied by the helipad and the access trail.

The Wakely Mountain fire tower is situated on the edge of the BRW. The existing and proposed new trail to the summit originate on Cedar River Road within the MRPWF, and trail use is expected to be relatively low. Therefore, the continued existence of the tower would have minimal impacts on the BRW.

APPENDIX 17 – RESPONSES TO PUBLIC COMMENTS

The Department released the Draft Blue Ridge Wilderness and Wakely Mountain Primitive Area UMP on December 22, 2005 for public review and comment. On February 7, 2006 the Department held a public meeting at the Adirondack Museum in Blue Mountain Lake to present the draft plan and hear spoken public comments. Eleven people spoke at the meeting, of whom nine also submitted written comments. All told, the Department received 115 comments by letter or e-mail. In addition, approximately 745 individually signed copies of a post card supporting the creation of the "Great Camps Historic Area" were received.

Numerous comments were made in support of various proposed actions. However, a number of comments included recommendations that proposals be modified or removed, or that new proposals be added. Recommendations for changes to the draft plan are listed below, organized by topic. Each recommendation is followed by the Department's response.

Wakely Mountain Fire Tower and New Wakely Mountain Trail

1. *Retain the fire tower and observer's cabin, but the helipad should be removed. Materials can be transported to the site by helicopter using a sling, so that the helicopter will not have to land. The clearing for the helipad will be excessive.*

   The proposal to rebuild the helipad has been retained, because delicate radio equipment can not be transported to the site by dropping it in a sling from a hovering helicopter without significant risk of damage. Heavy lead-acid batteries must be periodically replaced, and periodic maintenance requires that delicate diagnostic equipment be transported to the site. A helicopter must be able to land to allow these materials and equipment to be transported safely.

2. *Remove the helipad, because it is not needed. A helicopter may land without a helipad, as on Pillsbury Mountain.*

   A helicopter requires a smooth, level landing area. The topography on the summit of Wakely Mountain does not meet these requirements. Therefore, a helipad is needed.

3. *Retain the fire tower, but remove the observer's cabin and helipad. The cabin is a focal point for vandalism and littering and would be costly to maintain. The cabin and helipad lack historical significance.*

   The Department intends to keep and maintain the observer's cabin. Though the existing cabin was built in the early 1970s, a cabin has been part of the fire tower site since approximately 1911 and is an important element of the site's historic character. The cabin has suffered little from vandalism and is in good condition. Maintenance costs would not be significant. The Department expects that an active volunteer group will provide assistance in maintaining and protecting the summit structures.

4. *Remove the fire tower, observer's cabin and helipad and reclassify the primitive area to wilderness. The fire tower is obsolete, and the retention of the tower and other structures would violate the APSLMP. A radio repeater is not needed, because satellite communication technology is available.*

   The Wakely Mountain fire tower originally was constructed at this location because it was needed for fire detection and radio communications. When the APSLMP was adopted in 1972, the Wakely Mountain Primitive Area was created to allow the fire tower to remain as long as it was needed. There are extensive areas without radio reception in the region surrounding the tower. Radio reception could be restored in these areas if a radio repeater, similar to the equipment mounted in other towers, were mounted in the Wakely Mountain tower. Therefore, the tower continues to be needed for one of its original purposes.

   Satellite communication is not a feasible approach to meeting Department radio communication requirements. Difficulties include excessive transmission transit time for both geosynchronous and low-earth-orbit satellite systems, a limited number of satellites with limited capacity and large demand, a cost of several hundred million dollars for each new satellite, an extended satellite launch backlog, poor voice quality, the lack of ability to prioritize public safety use over all other uses, and the incompatibility of the dedicated satellite public safety frequency band with the band presently approved by the Federal Communications Commission for public safety uses.

5. *The Department should provide for the long-term retention of the fire tower and associated structures by requesting reclassification of the area in the immediate vicinity of the structures to wild forest, and the rest of the primitive area to wilderness.*

   It is not clear to the Department that, as the wild forest guidelines for fire towers are written, the status of the Wakely Mountain tower and associated structures would be significantly different in a wild forest classification. In order to address this and other issues related to the future management of Adirondack fire towers, a management action has been added to the UMP: the Department will work with APA to develop a comprehensive Adirondack fire tower management plan.

6. *The primitive area classification for the area including the fire tower and associated structures should remain. When the fire tower is no longer needed, it should be removed, and the land reclassified to wilderness.*

   Though the plan proposes that the fire tower remain because it is needed for communication purposes, it also has recreational, educational and cultural values that could justify its retention in the future. The Department will work with APA to determine the future course of fire tower management through the development of a comprehensive Adirondack fire tower management plan.

7. *Permit educational activities to occur at the fire tower site, possibly through a stewardship agreement with a volunteer group.*

   Should the Department receive an application for a stewardship agreement from a volunteer group that is interested in conducting educational activities at the fire tower site, the Department will work with the group to craft an agreement that will encourage those activities in ways that are consistent with APSLMP guidelines.

8. *Retain the picnic table on top of Wakely Mountain.*

   The existing picnic table is not a conforming structure in primitive areas and must be removed.

9. *Do not use a wind generator to power the radio equipment to be installed in the tower.*

   The draft UMP included a proposal to monitor the ability of solar panels alone to provide sufficient battery recharging capacity and, should the solar panel system prove inadequate, to attach a Southwest Windpower Air-X industrial wind electric generator (or equivalent) with a 46-inch diameter rotor to the corner of the tower's cab. The Department intends to configure the system using solar panels alone. The proposal to add a wind generator has been removed from the plan.

10. *Do not rebuild the helipad or cut trees around it to permit helicopter landing. Tree cutting and disturbance in this area will reduce the already severely reduced habitat necessary for Bicknell's thrush and other bird species. Tree cutting will fragment the forest, thereby allowing predators to prey on species requiring deep woods.*

    The Department is not aware of evidence that Bicknell's thrush habitat has been reduced in New York State. The proposed clearing at the helipad site will not be significant in the context of available habitat, since it will affect 0.18 acres of more than 5,000 acres of upper-elevation spruce-fir forest within the unit that is included in the Adirondack Subalpine Forest Bird Conservation Area. Fragmentation is not expected to adversely affect Bicknell's thrush breeding and survival near the helipad site. The description of the preferred alternative in Appendix 16 has been revised to include reference to a recent study of the use of Vermont ski areas by Bicknell's thrush (Rimmer et. al. 2004). The study found few significant differences in population and reproductive parameters between areas developed for skiing and natural forests. The researchers found no significant difference in nest predation rates between ski area and natural forest plots, even though nest densities were higher near ski trail edges. At the helipad site, the potential for predation is likely to be very limited, since it is unlikely that predator species will be found near a small, isolated opening near a mountain summit surrounded by an extensive relatively unbroken forest. The limited

potential for fragmentation effects in the small area of the helipad site will be minimized by leaving spruce and fir trees up to six feet tall within the cleared area except in the area occupied by the helipad and the access trail.

11. *Do not rebuild the helipad or cut trees around it until a detailed bird species inventory of all areas above 2,800 feet is conducted and a standardized monitoring program for at-risk species is implemented.*

    The Department's proposal to conduct inventories of ecological communities, rare species and critical habitats will include Bicknell's thrush. Inventories of rare species will be conducted periodically to monitor population trends.

12. *When the new trail to the summit of Wakely Mountain is constructed, maintain the existing trail as well. It is historic and will increase recreational opportunity and reduce environmental impacts on each trail. It is more convenient in terms of highway access. The two trails would make a good loop hike. The existing trail would be a better route from the proposed reroute of the NPT.*

    The route of the new trail was selected for its steady grade, which will minimize its susceptibility to erosion. The new trail was proposed under the assumption that it would replace the existing trail, which has sustained significant erosion and whose final mile is very steep. After the new trail is constructed, the Department will monitor public use and use impacts on both trails. If soil erosion on the existing trail is continues to exceed acceptable levels, the Department might propose to close the existing trail.

13. *When the new trail to the summit of Wakely Mountain is constructed, close the existing trail.*

    See the response to comment 12.

14. *When the new trail to the summit of Wakely Mountain is constructed, maintain the existing trail and build a connector trail to allow a loop hike.*

    Because the new trail was proposed with the assumption that it would replace the existing trail, the potential for a trail connecting the two was not considered. In any case, the topography in the area between the existing trail and the Cellar Pond route is rugged and does not appear suitable for the construction of a connector trail.

15. *The new trail should be routed to be gradual and not require significant tread hardening.*

    The new trail will have a steady, moderate grade and will be routed to avoid wet areas.

16. *The new trail should be routed to avoid sensitive habitats.*

There are no wetlands or significant habitats in the vicinity of the anticipated route of the new trail, except that the section above an elevation of 2,800 feet will be within the Adirondack Subalpine Forest Bird Conservation Area.

17. *Do not build a new trail to the summit of Wakely Mountain. The existing trail is a historic route.*

    The final mile of the existing trail is very steep and susceptible to erosion. The proposed route of the new trail is gradual and less steep, and is expected to be less susceptible to erosion over the long term. The Department intends to build the new trail because resource protection is a primary goal for the management of Forest Preserve lands.

18. *Do not build a new trail to the summit of Wakely Mountain. Reduce the grade on the upper section by constructing switchbacks.*

    If a more gradual route were not available, the Department would consider constructing switchbacks on the steep final mile of the existing route. However, to reduce trail grade sufficiently, switchbacks would add significantly to the length of the trail. Hikers might be tempted to minimize hiking distance by taking a more direct route along the fall line, thereby defeating the purpose of the switchbacks. The Department intends to take advantage of the natural topography on the Cellar Pond route to construct a new trail that will have a steady, moderate grade without the need for switchbacks.

Sawyer Mountain Vista

1. *Continue to maintain the vista on Sawyer Mountain to maintain an existing recreational opportunity.*

   The UMP has been revised. The Department intends to continue to maintain the vista on Sawyer Mountain. However, because the view from the vista location is limited and requires ongoing maintenance, the opportunity for constructing a new trail to a more open vista within the Blue Mountain Wild Forest in the vicinity of the Sawyer Mountain trail will be investigated. If a suitable opportunity is found, the Blue Mountain Wild Forest UMP will be amended, the new trail will be constructed, and the maintenance of the Sawyer Mountain vista will be discontinued.

2. *Vista cutting is acceptable if it is judicious and tree cutting is immaterial, if the proposal is listed in the UMP for the area and is supervised and approved by the Department.*

   The 1986 Forest Preserve Policy Manual provides that in wilderness areas, "existing scenic vistas may be maintained by the cutting of brush and tree limbs and by minor tree cutting if the continuance of the scenic vista is specified in the unit management plan for the State land area involved." It is included in the trails

section, because a vista is considered an integral feature of a trail, not a distinct improvement as that term is defined in the APSLMP.

3. *Vista maintenance is acceptable if it involves sidecutting, but not tree cutting.*

   In general, minimal tree cutting is permitted for the construction and maintenance of conforming structures and improvements. Few trees would be cut to maintain an existing vista, and none would be cut to create a new vista.

4. *Do not maintain the vista. It is a violation of Article 14 of the New York State Constitution. It does not conform with the APSLMP. It does not conform with wilderness standards.*

   In the Proposed Management Actions section under the heading, Sawyer Mountain Trail, a description of a 1935 Attorney-General opinion has been added. The opinion provided that, "Article VII, section 7 of the New York State Constitution does not prevent the removal of an immaterial amount of tree growth for the purpose of opening vistas or views in connection with the building of pedestrian trails in the Forest Preserve. Care should be taken that such removal does not pass the point of immateriality as defined by the courts." The written opinion includes the advice that tree removal be done "where as little cutting as possible is required."

   A summary of an analysis of the APSLMP has been added. The APSLMP indicates under "Classification System and Guidelines" that among the factors which give a sense of remoteness and a degree of wildness to wilderness visitors are "the views over other areas of the Park obtainable from some vantage point." A wilderness area is defined as an area ". . . which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable . . ." The maintenance of an existing vista on a mountaintop by immaterial tree cutting, branch trimming and brushing which does not alter the wild forest character of the area is not inconsistent with this definition because such maintenance does not constitute a "significant improvement" and allows a wilderness area to continue to "generally" appear to have been affected "primarily" by the forces of nature, with man's work "substantially" unnoticeable. Vistas are included neither in the wilderness list of conforming structures and improvements, nor in the list of those considered nonconforming. All structures and improvements not listed as conforming are considered nonconforming. However, a scenic vista clearly is not a structure, and the maintenance of an existing vista through minimal tree cutting, branch trimming and brushing does not appear to meet the APSLMP definition of an improvement. Therefore, the APSLMP does not appear to prohibit immaterial tree cutting, branch trimming and brushing to maintain vistas in wilderness.

5. *Do not maintain the vista. There are opportunities for new trails to open vistas nearby, both within the BRW and in the Blue Mountain Wild Forest.*

See the response to comment 1.

6. *Approving vista maintenance here sets a precedent that could lead to the proliferation of proposals to maintain vistas.*

   The Department will only maintain vistas identified in unit management plans subject to public review in accordance with Department policy. The Department anticipates that few vistas will proposed for maintenance.

7. *Approving vista maintenance here encourages overuse.*

   The Department has maintained the Sawyer Mountain vista for at least 25 years and proposes to continue to maintain the vista to the same limited degree. The use of the Sawyer Mountain trail has been moderate. With generally moderate grades and a stable surface, the trail is capable of withstanding substantial foot traffic without significant physical impacts. It is not likely that visitors have high expectations for solitude on this short roadside trail. Therefore, it appears that there could be significant increases in trail use without unacceptable physical or social impacts. Nevertheless, the Department does not anticipate that use levels will grow significantly or that the continuation of vista maintenance will lead to unacceptable use levels.

8. *Maintaining the Sawyer Mountain vista fragments the forest, thereby allowing predators to prey on species that require large unbroken forest tracts.*

   The probability that predation would be increased by a small opening on the summit of a mountain surrounded by a large expanse of relatively unbroken forest is expected to be low. Very few of the species that could be serious nest predators are likely to be found in any number at this location. The overall effect of any increase in predation would be insignificant in a landscape context.

Relocation of the Northville-Lake Placid Trail

1. *It is not clear that alternative analyses for the NPT relocation or other management proposals incorporated detailed analysis of available natural resource inventory information or used the GIS expertise of the UMP-GIS Consortium.*

   The alternative analysis made use of all available natural resource inventory information. However, it occurred before the products under development by the UMP-GIS Consortium were fully developed. Since the release of the draft UMP, UMP-GIS Consortium staff have performed a least cost path analysis, which supported the preferred alternative. The description of the results has been added to Appendix 14, and a map has been added to Appendix 20.

2. *The new route should avoid sensitive habitats, wetlands and stream crossings.*

   The preferred alternative was selected to minimize impacts on significant habitats and wetlands and to minimize stream crossings. The work to identify the final route location in the field will be guided by these objectives.

3. *The best route is alternative 2B, which includes the construction of new trail along the east side of Cedar River Flow.*

   The Department intends to maintain the existing route along the west side of Cedar River Flow to avoid significant new trail construction in the West Canada Lake Wilderness, as well as a substantial foot bridge over the Cedar River.

4. *Is there a public access easement along the old road or trail along Brown's Brook?*

   No public access easement at this location is known.

5. *Construct a spur trail to Sugarloaf Mountain. It would be a short hike to a great view. Safety concerns should not prevent the project. In wilderness people should be responsible for their own actions.*

   As a basic guideline for wilderness, the APSLMP provides that, "All management and administrative action and interior facilities in wilderness areas will be designed to emphasize the self-sufficiency of the user to assume a high degree of responsibility for environmentally-sound use of such areas and for his or her own health, safety and welfare." A goal of management for the BRW is to retain its relatively undeveloped character. The Department encourages visitors to acquire good maps, a compass and wilderness travel skills before exploring the unique features of the area, such as Sugarloaf Mountain. However, the existence of a marked, maintained trail to the summit of Sugarloaf might attract some visitors who would not be adequately prepared for their arrival at the high, steep cliff face. Because there appears to be no place along the top of the cliff where more than two or three people could safety stand at one time, a marked trail could attract more use than the destination could safely accommodate. Therefore, the Department does not intend to construct a trail to the summit at this time.

6. *Construct a lean-to on the new route of the NPT between Wakely Pond and Browns Brook. Don't put it too close to Cedar River Road so that it will be available to NPT hikers.*

   The plan has been modified to allow for the possible construction of a lean-to on the NPT between the Gould road and Brown's Brook.

7. *Construct a foot bridge over Brown's Brook. The stream can rise dramatically after a heavy rain.*

   It is likely that the Department will construct a foot bridge over Brown's Brook. It will be constructed at the best location to protect the banks from erosion and will be sufficiently elevated to accommodate natural variations in stream flow.

8. *Do not construct a foot bridge over Brown's Brook. Hikers should be prepared for changes in natural conditions.*

   See the response to comment 7.

9. *Move the NPT relocation project to year one to address the access issue at the former McCane's Resort.*

   The implementation schedule reflects management priorities for the BRW and WMPA within the context of work being scheduled in all Forest Preserve UMPs. The Department acknowledges the interest of the present owner of McCane's to relocate the trail, and appreciates his willingness to allow through hikers to continue to use the existing route until the new trail is completed.

10. *There should be a policy for the overall management of the NPT.*

    Because the NPT was completed by 1923, there have been few management issues affecting the trail in recent years, except the desire to move the sections that follow roads into the woods. Proposals for these major relocations are presented in this and other UMPs. In selecting the routes of the proposed relocations, Department staff referred to existing guidelines for the management of trails in the Forest Preserve and consulted with the Adirondack Mountain Club and other experts. Though existing guidelines would be effective in addressing the ongoing management of the NPT, the Department acknowledges the historic importance and distinctive character of the trail and would support the development of a set of management guidelines.

Other Trail Comments

1. *The Department needs better information about visitor use. Perhaps signing trail registers should be legally required.*

   The UMP proposes that trail registers be installed at all trailheads serving marked trails. Recent research in other areas indicates that a very high percentage of wilderness visitors sign trail registers without being legally required to do so. The plan also proposes that the Department contract with a university to conduct a visitor study.

2. *Trail registers should be installed at all marked trails to determine use.*

   See the response to comment 1.

3. *There should be a barrier at the end of the Death Brook Falls trail to prevent people from climbing the bank to the top of the falls. Climbing the steep bank to the top of the falls is dangerous and will damage the environment.*

   The Department will investigate measures, including trailhead signage and a suitable barrier at the end of the trail, to prevent visitors from climbing the steep banks to the top of Death Brook falls.

4. *A hiking trail from Sprague Pond to Stephens Pond would give access to the pond and the Northville-Lake Placid Trail from a point nearer the beginning of Cedar River Road.*

   Because there will be trail access to Sprague and Stephens Ponds, and a goal for the management of the BRW is to retain its relatively undeveloped character, the Department has decided not to construct a trail connecting the ponds.

5. *The Department should modify existing regulations that apply to horses on foot trails to include all pack animals.*

   Existing regulations that apply to horses should be modified to include other animals whose use could affect Forest Preserve resources.

6. *The removal of trail obstacles to increase their accessibility for people with disabilities should be done with hand tools and with great caution.*

   APSLMP guidelines for wilderness prevent the use of motorized equipment for trail construction. Only minimal alterations using hand tools at suitable locations are proposed.

7. *The plan should note the trails that are suitable for skiing and snowshoeing, especially for younger people, older people and novices. Is the Cascades trail good for novice skiers?*

   The plan proposes that trails in the BRW be assessed and information about trail characteristics be provided to potential visitors. The Cascades trail would be an excellent novice cross-country ski trail.

Sagamore Ruins and Historic Great Camps Special Management Area

1. *Reclassify the lands where the ruins of the former Camp Sagamore hydroelectric complex is located to wild forest, primitive or historic. The buildings are fairly intact, and therefore should be considered differently than less substantial ruins.*

   The ruins of the hydroelectric complex have significant historic value in their association with nearby Great Camp Sagamore, whose educational programs include the interpretation of the ruins in the context of Forest Preserve history. The Department intends to retain the structures in recognition of their historic value, but not to maintain or restore them, install interpretive signs or displays or otherwise manage them in ways that would not conform with APSLMP guidelines for wilderness. Though the valvehouse and powerhouse are substantial structures, they are relatively unobtrusive, and their presence and proposed management does not significantly detract from the wilderness character of the area. The reclassification of the lands containing the ruins could imply an intention to manage the area more intensively. Since the Department intends to manage those lands in accordance with wilderness guidelines, the benefits of a reclassification do not appear sufficient to justify the administrative costs of creating and maintaining a small, detached new management unit. The hydroelectric complex is included with a number of other historic sites associated with Great Camps Sagamore and Uncas in a new Historic Great Camps Special Management Area. This designation will assure that the facilities and historic sites within it will be managed comprehensively, while remaining in conformance with the management guidelines for the lands on which they lie.

2. *Take minimal measures to display and restore the Sagamore ruins.*

   The Department intends to retain the ruins, subject to the forces of nature. Restoration or the installation of on-site interpretive displays would not conform with APSLMP guidelines for wilderness. The Department will support the efforts of the Sagamore Institute and others to interpret the site through guided tours, publications and lectures.

3. *The APSLMP should be amended to include a section on how to recognize and manage ruins in the Forest Preserve.*

   In the Special Management Guidelines section, the APSLMP provides guidelines for the management of a number of special interest areas, including "historic buildings, structures or sites that are not part of a designated historic area."

Fisheries

1. *Artificial fish stocking and reclamation of wilderness ponds should be allowed where and when careful biological studies show that they are feasible.*

   Fish stocking decisions are based upon survey data collected by the Department or the Adirondack Lake Survey Corporation, which has a Department affiliation. Ponds are surveyed prior to stocking to evaluate whether they have the chemical and physical features necessary to support brook trout or other desired fish species. Reclamation decisions are based on biological, chemical and physical surveys of candidate ponds. The pond narratives given in Appendix 5 provide details on why specific waters were selected or rejected as reclamation candidates.

2. *Follow-up studies should be made a part of the approval for reclamations.*

   APA wetlands permit conditions for pond reclamations in wilderness require studies on non-target mortalities during a reclamation and again a few years afterward. Results are reported to the Agency and APA staff have participated in some of these assessments. To date, no serious non-target mortalities have occurred in a reclaimed pond and all populations quickly recover to levels as high or higher than pre-treatment. The Bureau of Fisheries also does post-reclamation netting to confirm that all fish were killed in a project. After the pond is restocked, Fisheries will conduct surveys to document trout survival and the extent of natural reproduction.

3. *The Department should invite outside scientists to study the effects of chemical reclamations.*

   Impacts of rotenone treatment on lakes and streams have been studied hundreds of times. Bradbury (1986) summarizes many of those studies. Cornell University researchers studied Adirondack ponds in particular in the 1990s (Harig and Bain 1995). Many reclaimed waters are included in ongoing research projects by a variety of government and academic institutions. None of the research projects listed above has found long-term negative impacts to the aquatic communities of reclaimed ponds.

4. *The Department should develop a comprehensive public education effort to control the use of bait fish and ban all use of live bait in reclaimed waters to reduce the likelihood of future non-native fish introductions.*

   The use of bait fish is already banned in all reclaimed waters and in most wilderness, primitive or canoe area waters, regardless of whether they have been reclaimed or not. Educational efforts by the Bureau of Fisheries have been increased in recent years by staff speaking at meetings, museums and fairs. Fisheries is also developing a portable display on non-native fish species impacts for events which cannot be attended by staff. Several articles on non-native

species impacts have appeared in newspapers, *The Conservationist* magazine, and *Adirondack Life* magazine. Outdoor writers have also been encouraged to discuss this topic in their articles and columns. In recent years, outreach efforts by various groups regarding the impacts of non-native aquatic plant such as Eurasian milfoil and purple loosestrife have made the general public more aware of the need to control non-native species. Information on non-native fish species impacts is being developed for the Department website.

5. *The reclamation of Sprague and Slim Ponds should not occur. Instead, research should be done to determine what measures could be taken to restore their native biota.*

   Over 50 years of fisheries management experience in the Adirondacks has unequivocally demonstrated that reclamation with rotenone is the only tool available to restore native brook trout to a pond once nonnative species have become established. There is no instance when stocking efforts alone restored a naturally-reproducing trout population. In some private trout waters infested with undesirable species, an intensive netting effort to remove rough fish, such as trapnetting white suckers or bullheads during their spring spawning runs, has short term benefits for the trout population. Inevitably, once such efforts cease, the trout population again declines. Annual, intensive rough fish removal is not possible in public waters and would be far more intrusive in wilderness waters than a one time reclamation project.

6. *The reclamation of Slim Pond is questionable because it could adversely affect adjacent wetlands and kill other species.*

   The reclamation of Slim Pond will require an APA wetlands permit. APA staff do an intensive review of each permit application in regards to possible wetland impacts. No long term negative environmental impacts of pond reclamation have been found in Adirondack waters.

7. *The reclamation of Sprague Pond is questionable. It appears to be an expensive project with a limited chance of success. It could affect the loons nesting on the pond.*

   Sprague Pond was an important historic brook trout water and it is a goal to restore such waters when feasible. Further work is necessary to judge whether this project can be undertaken successfully, but the action must be listed in the UMP if it is ever to happen. The barrier dam must be made functional and the large wetland areas adjacent to the pond would require treatment only under dry conditions. If loons are found to be nesting on Sprague Pond in the year a reclamation project is scheduled, the project will not be undertaken until the loon chicks have fledged. It is important to realize that loons are commonly observed to feed and even nest on known fishless waters. Their diet on such waters is comprised of frogs, tadpoles, crayfish and larger invertebrates. Most reclaimed ponds are favored habitat for loons, which certainly thrive eating trout.

8. *When reclamations occur, signs should be posted at trailheads and notices posted on the Department's website to inform the public.*

   The Department does post signs informing the public of a reclamation effort at appropriate trailheads just prior to the start of a project. The signs are left in place until the pond has detoxified. Also, riparian landowners on affected waters are notified by mail, as are local government officials. Reclamation projects are published in *The Environmental Notice Bulletin*. These measures comply fully with Department pesticide regulations. Notices are not placed on the Department website. It is very difficult to inform the public of a project start date ahead of time. Many factors, such as bad weather or logistical problems, can result in projects being postponed or cancelled. Therefore, the best notification procedure is to post signs the same day a treatment starts. Since most reclamations are undertaken in late September or early October when water temperatures have cooled, water user impacts are minimal.

9. *What other chemicals are included with the rotenone used in reclamations, and what impacts do they have on aquatic ecosystems?*

   The Material Safety Data Sheet (MSDS) for Noxfish Fish Toxicant used by Fisheries lists the ingredients for this chemical. Noxfish is comprised of 5% rotenone, 10% associated rotenone resins, 5% acetone, and 80% aromatic petroleum solvent. Noxfish is spread at a rate of 1 part per million (ppm) maximum in New York State. Label dose rates in other states allow up to 5 ppm to be applied. At New York treatment rates, 0.05 ppm of acetone and 0.80 ppm of aromatic petroleum solvent would be applied in a water. The studies listed in Bradbury (1986) and Harig and Bain (1995) have examined the aquatic ecosystem impacts of the various formulations of rotenone, including those with the solvent agents. None of these studies has found long term environmental impacts from applying rotenone formulations.

10. *The stocking of non-native fish species in interior ponds violates wilderness management goals. It would be better to have fewer brook trout than to stock brown trout for the purpose of increasing brook trout numbers.*

    Stocking of brown trout in wilderness waters is permitted under the Department's Wilderness Management Guidelines developed during the early 1990s with extensive consultation with Adirondack Park Agency staff, environmental groups such as the Adirondack Council and Adirondack Mountain Club, and sportsmen groups, such as Trout Unlimited. The Guidelines appear in Appendix 7.

11. *Take management actions to maintain Death Brook and South Inlet as spawning routes for suckers and smelt, the primary food source for lake trout in Raquette Lake.*

    Sportsmen have reported in some years that the mouth of Death Brook is blocked by sandbars in Raquette Lake which, they believe, limit fish spawning. In other

years, there is no sandbar. When Fisheries staff have checked Death Brook, both sucker and smelt have been observed near the Route 28 bridge. It does not appear that the sandbar is a serious impediment to fish spawning. South Inlet is a much larger stream than Death Brook and there are no known impediments for fish spawning along its length.

Wildlife

1. *An adult loon and two chicks were observed on Sprague Pond in August, 2005. Keep the loon protection advisory sign in place here, as well as other waters with breeding loons. Would improving canoe access for people with disabilities disturb nesting loons?*

   Reference to the loon observation has been added to the wildlife inventory section, and management actions to post loon advisory signs at the Sprague Pond and Sagamore Lake trailheads have been added. Sprague Pond is a popular fishing destination reached by a relatively short trail. The moderate use of nonmotorized boats in spring has occurred for many years. The proposed improvement of boat access for people with disabilities is not likely to result in significantly increased use or use impacts on nesting loons. The Department will continue to stress loon protection through education.

2. *The UMP should include better wildlife surveys and better information about the status of planning for the reintroduction of extirpated wildlife species.*

   The UMP presents available information about wildlife in the BRW and WMPA. Proposed management actions to add to present knowledge about wildlife in the area include surveys for moose, American marten, spruce grouse and spruce grouse habitat, boreal habitats and bird species such as Bicknell's thrush that are associated with lowland and high-elevation boreal forest, and other critical habitats. Other proposed actions include supporting statewide survey efforts, such as the Breeding Bird Atlas and New York Natural Heritage Program surveys, and mapping and inventory information for deer wintering areas.

   In Management History and Direction, Past and Present Management, Wildlife, the plan has been revised to add a discussion of extirpated species.

3. *The tables of birds and mammals should list species phylogenetically.*

   The species list will be resorted by Order when the plan is revised.

4. *The UMP should provide the latest information about chronic wasting disease in whitetail deer, as well as Department programs to enforce the regulation against feeding wild deer.*

The plan was revised to include information about chronic wasting disease. The enforcement of the regulation against deer feeding is routinely conducted by Department law enforcement staff as an important part of their responsibilities.

5. *The Department should address invasive animals, such as Canadian geese and earthworms. Earthworms are not native to the Adirondacks and can impact forest understories.*

The Department does not consider the Canadian goose an invasive species. The Department has prepared a pamphlet that explains actions individuals can take to reduce problems associated with Canadian geese near camps or homes on islands, lakes or river shorelines in Northern New York outside the Forest Preserve.

The use of earthworms as bait is legal in New York State. Studies regarding earthworms damaging forest duff and impairing some plant species have been done in the Midwest, but staff are unaware of similar research in New York State. Earthworms are ubiquitous in the Adirondacks, and it is likely that the ecological effects of the presence of earthworms have been established for decades. Preventing the use of earthworms by anglers in the future is not likely to have ecological benefits.

6. *Trapping pine marten should not be allowed in areas where they are very rare. Hare and ruffed grouse are food for predators and should not be harvested.*

The American marten is not rare in the Adirondacks. While martens are secretive and rarely observed in the wild (with the exception of campsites in the High Peaks Wilderness), their population has expanded throughout much of the Adirondacks over the past several decades. Martens can be legally trapped in Wildlife Management Units 5F, 5H, and 6J, an area which includes the BRW and WMPA. Trapping in New York is highly regulated and the Department closely monitors the harvesting of martens and other furbearers. Because access to many areas of the Adirondacks is difficult, much of the region remains untrapped. Limited access ensures sustainable harvests and the availability of animals to fill unoccupied habitats. Relative inaccessibility is one of the reasons that historically many furbearers, including marten, fisher and otter, were able to persist in the Adirondacks when they were extirpated in other regions of the Northeast.

Hare and grouse are dependent on early successional habitats and regenerating forest, which are not abundant in the Adirondacks. Hare and grouse can be hunted, but not trapped. Hunting pressure on these species throughout the Adirondacks is light and has limited impact on their populations.

Other Comments

1. *It may not be appropriate to construct an accessible canoe launch on Sprague Pond.*

   The Department will investigate ways to improve access to the shore of the pond for people with disabilities. Improvements will be made only if they will be feasible under wilderness management guidelines.

2. *Designating campsites on Sprague Pond might help reduce the damage caused by fires on the point on the west side of the outlet.*

   Though the evidence of campfires on the west shore of Sprague Pond appears to be associated with day use, the UMP proposal to designate two campsites may reduce the incidence of shoreline campfires.

3. *Do not maintain a waterway access site on South Inlet that does not have a monitor on site who is trained to prevent the introduction of invasive plants into Raquette Lake.*

   The Department intends to post signage near the existing waterway access site to inform the public about aquatic invasive plant concerns and prevention measures. The Department will support the efforts of the Adirondack Park Invasive Plant Program to monitor this and other access points.

4. *Do not allow motorboat access on South Inlet. Motors violate wilderness standards and motorboats could cause the spread of invasive species.*

   South Inlet forms the boundary between the Blue Ridge Wilderness and Moose River Plains Wild Forest. It has been used for motorboat access to the Cascades since the late 1800s. Motorboat use has not resulted in significant impacts to the BRW. The establishment of South Inlet as a no-wake zone will minimize conflicts between motorized and nonmotorized boats and will reduce the potential noise impacts of the use of South Inlet on the interior of the BRW. Measures to inform the public at access points about aquatic invasive plant concerns and control measures will address potential invasive plant introductions.

5. *Allow only electric trolling motors on South Inlet.*

   See the response to comment 4.

6. *A no-wake-zone regulation for South Inlet would be ineffective in stopping motorboats and personal water craft.*

   The Department's goal of public adherence to legal requirements intended to protect natural resources and the quality of the recreational environment of South Inlet will be pursued through education and enforcement efforts.

7. *Lake Durant should be managed as a motorless lake.*

   Lake Durant is not within the BRW, but forms part of its northern boundary. Motorboats have been used on Lake Durant for many years. Route 28, a major highway with significant levels of automobile traffic, is adjacent to much of the lake's northern shore. Therefore, motorboat use appears to be compatible with the environment of the lake, and the Department is not considering the prohibition of motorboats at this time. Specific issues related to motorboat access will be addressed in the Lake Durant Campground UMP.

8. *The Department should work with the Adirondack Park Invasive Plant Program to carefully monitor roads around the BRW and WMPA and trails within the area for invasive species.*

   The Department will continue to work with the APIPP to inventory, monitor and control invasive plants on Forest Preserve lands.

9. *Targeted application of herbicides to control terrestrial invasive plants should be permitted where necessary.*

   The Department is in the process of finalizing "best management practices" for the control of terrestrial invasive plants on the Forest Preserve. These ultimately may include the targeted application of approved pesticides.

10. *Department staff should be trained to recognize invasive plants.*

    Department staff will be trained to recognize invasive plants.

11. *The implementation of the Limits of Acceptable Change process should occur in year one.*

    The Department acknowledges the importance of the LAC process. However, the implementation schedule reflects management priorities for the BRW and WMPWA within the context of work being scheduled in all Forest Preserve UMPs.

12. *The contract inventory of ecological communities, rare species and critical habitats should be moved to year one.*

    See the response to comment 11.

13. *Keep the Cascade Pond lean-to in its present location. It is set back far enough from shore and is in the best spot on the pond for a view.*

    The APSLMP requires that all new, reconstructed or relocated lean-tos on lakes, ponds, rivers or major streams be set back at least 100 feet from shore.

14. *The Department should pursue the acquisition of private lands that would enlarge and protect the BRW.*

    The Department will pursue strategic additions to the Forest Preserve in accordance with the New York State Open Space Conservation Plan.

15. *The UMP does not present all of the analyses, assessments and inventories required by the APSLMP.*

    This UMP contains all the information required by the APSLMP.

16. *The UMP should state more accurately that the mission of the Department is to protect natural resources, not to balance competing recreational impacts and uses.*

    The APSLMP provides that, "the primary wilderness management guideline will be to achieve and perpetuate a natural plant and animal community where man's influence is not apparent." The APSLMP also provides that, "The following types of recreational use are compatible with wilderness and should be encouraged as long as the degree and intensity of such use does not endanger the wilderness resource itself: hiking, mountaineering, tenting, hunting, fishing, trapping, snowshoeing, ski touring, birding, nature study, and other forms of primitive and unconfined recreation." It is the responsibility of the Department, then, to manage potential conflicts between the protection of natural conditions in wilderness and the encouragement of appropriate types and levels of recreational use. Also, the types and levels of public use at a particular time and place in wilderness can affect the recreational experiences of visitors. The Department's responsibility includes the management of potential conflicts between people in light of a key part of the definition of wilderness, that it "has outstanding opportunities for solitude or a primitive and unconfined type of recreation." The management of these conflicts may be characterized as a balancing of competing goals, whose relative weights are assigned, not through the application of a simple, objective process, but one that involves an analysis of issue-specific natural resource and public use conditions in the context of legal requirements, policy guidelines, and the goals and objectives for the area, with public participation. Clearly, in any attempt to address wilderness management issues, the balancing point should be much closer to protecting naturalness than encouraging use. The Department intends to employ the Limits of Acceptable Change process to address competing goals where there are concerns about the potential for unacceptable changes in wilderness resources or the recreational environment.

17. *Individual management units should be managed in the broader context of the State and private lands within the Adirondack Park.*

    The APSLMP provides a framework for the management of all Forest Preserve lands within the Adirondack Park. Through the process of creating a land classification system and selecting the classifications and boundaries of individual

management units, the APSLMP went a long way toward putting the management of each area of Forest Preserve land in a Park-wide context. While the general guidelines of the APSLMP assure that there will be a high degree of consistency in the management of the lands within each classification, the document also provides specific guidance for individual units that reflect their characteristics and relationships with other State and private lands. In the development of an individual UMP, the Department planning team considers how the management and use of the area affects adjacent State and private lands, and vice versa. Goals, objectives and management actions for the unit are developed after comparing it with other areas in the same classification and viewing it in the context of the Forest Preserve as a whole. Management decisions affecting access and use and the location of structures and improvements such as trails, campsites and parking areas reflect the interests of adjacent landowners, Adirondack communities and the people of New York. The coordination of Forest Preserve planning throughout the Park is facilitated through regular communication among Department planning staff, frequent training sessions and close consultation with the Adirondack Park Agency. Ongoing inventory, monitoring and management initiatives for wildlife, fisheries, significant habitats, rare and extirpated species, and invasive plants and animals are conducted on a Park-wide basis and reflected in individual UMPs. This effort has been greatly facilitated by the work of the UMP-GIS Consortium. Planning for long trails such as the Northville-Lake Placid Trail and the North Country National Scenic Trail and the Northern Forest Canoe Trail is conducted on a broad scale. The Department will continue to pursue strategies to improve the Park-wide coordination of Forest Preserve planning.

18. *Wilderness Management Principles should be removed from UMPs until they are approved in a public process resulting in an amendment to the DEC-APA MOU.*

The wilderness management principles included in wilderness UMPs reflect APSLMP guidelines and established wilderness management philosophy. They are included to assist planners and managers and to inform the public about some of the major considerations affecting the management of wilderness. Because the scope of the DEC-APA Memorandum of Understanding is specific to the interaction between the Department and the APA, it would not be appropriate to add principles for the management of particular Forest Preserve classifications.

19. *The UMP should contain better inventories of forest stand structure and composition, wetlands and sensitive ecosystems. The UMP does not contain discussions of areas in need of restoration or inventories and analysis of carrying capacity.*

Detailed information about vegetative communities, wetlands and sensitive ecosystems is not available. The Department supports biological inventory efforts to increase understanding about living systems throughout the Forest Preserve. Because the levels of facility development and public use are relatively low throughout the BRW and WMPA, few areas have sustained damage requiring restoration. In Inventory of Resources and Human Influences, Public Use, Lands

and Waters, Public Use Impacts, the UMP discusses all areas where restoration work is needed. Proposed management actions include trail inventories to document conditions. The UMP provides an extensive discussion of the capacity of the area to withstand use and proposes additional work needed to implement the Limits of Acceptable Change process.

20. *There are small purple fringed orchids near the outlet of Sprague Pond.*

The plan has been revised to include the observation.

21. *The Golden Beach Campground septic system should be eliminated and relocated to the intensive use area.*

The existing leach field for the Golden Beach Campground septic system was constructed in its present location in the 1960s, before the APSLMP was first adopted. The area was mistakenly included within the BRW. The Department will perform an engineering analysis to decide whether to rehabilitate the existing system in its present location or construct a new system outside the BRW. If the system will be rehabilitated in place, the Department will request that the area be reclassified to become part of the campground intensive use area. If the system will be moved, the site will be restored and retain its wilderness classification.

22. *The existing leach field for the Golden Beach Campground septic system should not be relocated for the sole purpose of conforming with wilderness guidelines. If refurbishing the existing system is the most cost-effective and environmentally sound solution, then the area should be reclassified to allow the leach field to remain where it is.*

See the response to comment 21.

23. *Reclassify the area east of Sagamore Road, south of Sagamore Lake and east of Lake Kora Road from wild forest to wilderness. Also reclassify the area near the northwest corner of the BRW, just north of Sagamore Lake from wild forest to wilderness to extend the northern boundary of the unit to Sagamore Road.*

The Department intends to request that APA consider reclassifying the section south of Sagamore Lake east of Sagamore Road from wild forest to wilderness. Reclassification would move an interior boundary to Sagamore Road and would require only a map amendment. The Department is not considering an extension of the northern boundary of the BRW westward to Sagamore Road at this time. The extent of physical evidence indicating the location of the existing boundary between the BRW and MRPWF in this area is not known. Extensive survey work might be required to determine the location of the existing boundary and establish the new line. The change would not increase the protection of the area and would have few management consequences.

24. *The plan is incorrect in stating that 12 percent of the unit is exposed rock.*

    Geological and vegetative covertype information is general in nature and may derive from the interpretation of remote sensing imagery. It is likely that the area of exposed bedrock in the BRW and WMPA is significantly less than 12 percent.

25. *A comprehensive set of regulations should be proposed, rather than individual sets one unit at a time.*

    Each UMP includes proposals for regulations that are considered appropriate for that management unit. A number of regulations proposed for units of a particular land classification are the same from plan to plan. The promulgation of a single set of regulations that would apply to all areas within a classification would be preferable to undertaking a separate process for each unit.

26. *New camping regulations aren't needed. Better enforcement would solve camping problems.*

    Existing regulations requiring camping groups of 10 or more to obtain camping permits do not include limitations on the size of camping groups. There are no regulations limiting day use group size or protecting natural conditions in the ways proposed in the plan. Therefore, new regulations are needed.

27. *The existing safety zone around Great Camp Sagamore should not be enlarged. Enlarging it would have too much of an impact on hunters.*

    The Department does not intend to enlarge the safety zone around Great Camp Sagamore at this time.

28. *Create more safety zones around specific areas in the Forest Preserve so that non-hunters will feel comfortable using them during big game hunting season.*

    Opportunities to hunt and fish in a wild setting have attracted people to the lands and waters of the Forest Preserve since it was created in 1885. In recent times increasing numbers of people have come to share the Forest Preserve and enjoy a variety of recreational pursuits. The Department continues to encourage regulated hunting as one of many activities considered appropriate throughout the Forest Preserve and supports hunter safety training and other educational efforts to protect hunters and non-hunters from hunting accidents. In general, the numbers of hunting accidents have declined steadily for decades, and in the Adirondacks there has not been a single documented incident of an injury inflicted by a hunter on a person not affiliated with a hunting party. Those visiting the Forest Preserve in autumn during the big game hunting season can hike marked trails with confidence, especially if they wear fluorescent orange clothing. It is a good idea for everyone planning a trip to the Forest Preserve to know what other people might be doing and when. Hunting season dates are published in the Department's *Hunting and Trapping Regulations Guide* and may be found on the Department's

web site, http://www.dec.state.ny.us. The Department's web site also provides information about hunting and outdoor safety.

29. *The Department should take measures to reduce noise impacts, such as aircraft noise.*

The sounds of aircraft can have significant impacts on the recreational environment of wilderness areas. Most aircraft respect existing regulations that prohibit touching down on wilderness lakes. Overflight is regulated by the federal government, and military overflight is subject to an ongoing dialogue group, National Environmental Policy Act process and military operating agreements that seek to minimize military flights over sensitive areas such as wilderness. Current discussions do not include overflights by private aircraft.

30. *Forest products should be harvested from Forest Preserve lands to provide jobs and revenue to the State.*

In 1885 the Forest Preserve was created as an area of State land to be "forever kept as wild forest lands." In 1895, the following provision was added to the New York State Constitution: " The lands of the state, now owned or hereafter acquired, constituting the Forest Preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed." Over the decades since the creation of the Forest Preserve, the people of New York repeatedly have expressed their desire to retain and expand the Forest Preserve as a protected natural landscape. The aesthetic and recreational attraction of Forest Preserve lands draws millions of people to the Adirondack region, who bring substantial economic benefits through their support of lodging and dining establishments and an array of other businesses. The Department supports the continued viability of the forest products industry in the Adirondacks and the jobs it creates. The purchase of conservation easements has assured that large tracts of private working forests will remain intact and will be sustainably managed to produce timber for the forest products industry far into the future.

31. *Former log roads should be kept clear for emergency access.*

The APSLMP provides that "the primary wilderness management guideline will be to achieve and perpetuate a natural plant and animal community where man's influence is not apparent." Another key guideline provides that "all management and administrative action and interior facilities in wilderness areas will be designed to emphasize the self-sufficiency of the user to assume a high degree of responsibility for environmentally-sound use of such areas and for his or her own health, safety and welfare." Though the use of motorized vehicles is permitted "in cases of sudden, actual and ongoing emergencies involving the protection or preservation of human life or intrinsic resource values," the construction or maintenance of roads for any purpose, including emergency access, is prohibited.

APPENDIX 18 – STATE ENVIRONMENTAL QUALITY REVIEW, NEGATIVE DECLARATION

State Environmental Quality Review
NEGATIVE DECLARATION
Notice of Determination of Non-Significance

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

The NYS Department of Environmental Conservation as lead agency, has determined that the proposed action described below will not have a significant environmental impact and a Draft Environmental Impact Statement will not be prepared.

Name of Action: Blue Ridge Wilderness and Wakely Mountain Primitive Area Unit Management Plan

SEQR Status: **Type 1 X**
Unlisted

Conditioned Negative Declaration: **Yes**
X No

Location: The Blue Ridge Wilderness (BRW) comprises approximately 47,000 acres and is located within the towns of Indian Lake, Long Lake, Arietta and Lake Pleasant and the village of Speculator in Hamilton County. It is roughly bounded by Route 28 between the hamlets of Indian Lake and Raquette Lake on the north, Cedar River Road on the south, and Sagamore Road and the lands of Camp Sagamore and Kamp Kill Kare on the west. The Wakely Mountain Primitive Area (WMPA) consists of 235 acres surrounding the fire tower, observer cabin and helipad on the summit of Wakely Mountain. It is on the southern border of the BRW.

Description of Action: The New York State Department of Environmental Conservation proposes to develop a unit management plan (UMP) for the BRW and WMPA, as required by Article 27, Section 816 of the Executive Law. The UMP must conform with the guidelines of the Adirondack Park State Land Master Plan (APSLMP), which requires that the plan contain an inventory of natural resources and man-made facilities, an inventory of actual and projected public use, an assessment of the potential impacts of public use on natural resources and the public enjoyment of the area, an assessment of the physical, biological and social carrying capacity of the area, and a statement of management objectives to address the protection and rehabilitation of the area's natural resources, the control of public use, the removal of nonconforming uses, opportunities for additional recreational use and the need for new facilities.

The BRW comprise approximately 47,000 acres with relatively limited recreational development and low levels of public recreational use. A major goal of proposed management is to preserve the area's relatively low level of development and to protect a recreational environment characterized by a high degree of solitude. The fire tower in the WMPA is the destination of a trail that begins in the Moose River Plains Wild Forest. It receives relatively low levels of use compared to other fire tower mountains.

The UMP includes a proposal to establish a Historic Great Camps Special Management Area (HGCSMA) consisting of Forest Preserve lands within the Blue Ridge Wilderness (BRW) and Moose River Plains Wild Forest (MRPWF) located in the vicinity of the historic properties at Camp Sagamore and Camp Uncas. The establishment of the HGCSMA conforms with the Special Management Guidelines section of the APSLMP. The purpose of this designation is to recognize the importance of the Great Camps as cultural resources of state and national significance, their contribution to tourism and educational and cultural programs in the region, and the importance of the management of the Forest Preserve lands around them, formerly parts of their original estates, in supporting the preservation of the Great Camps. Further, the designation is an acknowledgment that the educational and recreational programs of the Sagamore Institute emphasize the close connection between the history of the Great Camps and the creation and evolution of the Forest Preserve, and thereby promote the understanding, appreciation and enjoyment of the Forest Preserve by the public.

Because the HGCSMA includes lands within both the BRW and MRPWF, this special area plan will be incorporated within the UMPs for both areas. It is likely that the UMPs for the BRW and MRPWF will be adopted at different times. Therefore, management proposals in the portion of the HGCSMA affecting lands within a particular management unit will be finalized only when the UMP for that unit is adopted. Should the management proposals in the special area plan for the HGCSMA be changed in the UMP adopted later, the first UMP will be amended to include the changes, so that the final UMPs for the BRW and MRPWF will contain identical special area plans.

Actions proposed in the BRW and WMPA UMP include the continuation of existing recreational uses and management programs and the maintenance of existing structures and improvements, as well as the addition of new uses, programs, structures and improvements. Existing uses proposed for continuation include hiking, camping, fishing, hunting, trapping, cross-country skiing and snowshoeing. Programs conducted in support of natural resource protection and recreational use proposed for continuation include research and inventory projects, the monitoring of resource conditions, fish stocking and pond reclamation, public information and education efforts, search and rescue operations, fire protection and law enforcement. Existing structures and improvements including parking areas, trails, lean-tos and campsites are proposed for continued maintenance.

New recreational uses include hiking and cross-country skiing opportunities on new and relocated trails. New structures and improvements include new and relocated trails, a new lean-to along the Northville-Lake Placid Trail, new and expanded parking areas, construction of a fish barrier dam, installation of pit privies, designation or construction

of tent sites, and new barriers to prevent motor vehicle use. Management proposals include the adoption of new regulations to protect natural resources and the recreational environment, and the removal of nonconforming uses. Actions proposed in the draft plan are summarized below.

SUMMARY OF PROPOSALS

Fisheries

- Reclaim Slim Pond (R-P302)
- Reclaim Sprague Pond if an effective barrier dam is constructed

Classification and Reclassification

- Investigate the desirability of reclassifying the wild forest parcel east of the road between Sagamore Lake and Lake Kora to wilderness so that the boundary conforms with a geographic feature rather than a lot line.
- Propose classification of the unclassified parcel surrounding the Cascade Pond trailhead. Include the road from Durant Road (C.R. 19) to Lake Durant, along with the part of the unclassified parcel east of the road, in the Blue Mountain Wild Forest. Include the part of the parcel west of the road in the BRW.

Administration

- Designate a unit manager and appoint a unit management team.

Trails

- Maintain the existing marked trails to Wilson, Cascade and Stephens Ponds and the trail to Sawyer Mountain. Maintain the vista on Sawyer Mountain.
- Relocate the Northville-Lake Placid Trail from Cedar River Road to a new route on the periphery of the BRW (and in the Moose River Plains Wild Forest). Close the part of the existing route of the NP Trail from private lands to the intersection of the proposed new route south of Stephens Pond.
- Build a new trail along a less steep approach to the summit of Wakely Mountain from Cellar Pond in the Moose River Plains Wild Forest. After the new route is built, consider closing the existing route after analyzing use patterns and public interest.
- Mark and maintain the following existing unmarked trails: trails near Camp Sagamore, the Slim Pond trail, the Death Brook Falls trail, the Wilson-Cascade crossover trail, and the Sprague Pond trail.
- In the maintenance of marked trails or the construction of new trails, construct appropriate bridges or drainage structures where necessary to protect natural resources.

Trailheads

- Sagamore trails: Make minor parking improvements and provide better public information about the area. Keep use within the capacity of the area by not advertising the trails with a sign on Route 28.
- Death Brook Falls: Work with NYSDOT to construct a parking area for six cars.
- Slim Pond: Keep use within the capacity of the area by not improving the parking area or erecting signs visible from Route 28.
- Wilson Pond: Work with NYSDOT to pave the existing parking area.
- Cascade Pond: Build a four-car parking area.
- Sawyer Mountain: Maintain the existing paved parking area.
- Sprague Pond: Build a four-car parking area.

Waterway Access Sites

- Maintain existing sites on Sagamore Lake and South Inlet at Route 28. Provide better public information about their location. Install signs to help prevent the introduction of invasive plants.

Barriers

- Convert pipe gates to boulder barriers. Install new boulder barriers at all points where roads cross the boundary of the unit.

Lean-tos and Primitive Tent Sites

- Construct a new lean-to along the new route of the relocated Northville-Lake Placid Trail.
- Retain the existing lean-tos on Wilson, Cascade and Stephens Ponds. Relocate them to meet APSLMP setback distance guidelines when they need major rehabilitation. Close and relocate tent sites where necessary to meet APSLMP separation distances guidelines.

Cultural Resources

- Retain and restore the Wakely Mountain fire tower.
- Retain the Sagamore ruins, subject to the forces of nature.

Public Use

- Maintain the Sagamore safety zone, a 100-acre area around Camp Sagamore in which hunting and trapping is prohibited.
- Adopt regulations to prohibit:
    - camping groups larger than eight people and day use groups larger than 15;
    - The use of certain camping structures;
    - camping at elevations above 3,500 feet except at designated sites;

- campfires within 150 feet of roads, trails and water except at primitive tent sites or lean-tos;
- the use of audio devices which are audible outside the immediate areas of campsites;
- the use of soap or detergent in any water body;
- the disposal of food and food containers in any water body;
- the use of motorized equipment;
- the marking of trails with plastic ribbons, paint, blazes or other devices or the cutting or clearing of trails or the marking of summits with canisters except by written permission of the department;
- leaving a pet unattended or failing to maintain complete control over a pet;
- failure to have proof of rabies inoculation for any dog;
- the erection or maintenance of any commemorative features, such as signs, plaques or markers depicting cultural sites;
- undertaking any research project except under permit of the department;
- failure to take reasonable steps to keep food, food containers, and garbage from bears;
- possession of glass containers except those necessary for the storage of prescribed medicines;
- the erection or maintenance of any structure not specifically permitted;
- storing a boat or other personal property.

In addition, it is proposed that existing regulations be amended to increase penalties for the illegal use of motor vehicles on Forest Preserve lands.

Access for People with Disabilities

- Assess the trails of the unit for accessibility. Provide information to the public about trail characteristics.
- Make new parking areas and barriers accessible. Modify existing barriers and make minor improvements to trail surfaces within APSLMP guidelines where potential opportunities for people with disabilities are identified

Nonconforming Uses

- Wakely Mountain fire tower: Retain and restore the tower, observer cabin and helipad for radio communications, recreational use, and historic preservation.
- Sagamore ruins: Allow the ruins of the structures and improvements within the bounds of the former Sagamore estate to remain, subject to the forces of nature.
- Gould Road spurs: Install boulder barriers across the three dead-end roads branching off the boundary road near Wakely Pond known as the Gould road to prevent motor vehicle use.
- Golden Beach Campground septic system: The septic system for the Golden Beach Campground, constructed in 1966, is within the BRW and should have been included within the campground intensive use area. Depending on the results

of an engineering analysis, decide either to rehabilitate the existing system in its present location or construct a new system outside the BRW. If the system will be rehabilitated in place, seek to reclassify the area to become part of the campground intensive use area. If the system will be moved, restore the site of the existing system by removing all above-ground septic system components and planting a mixture of native tree seedlings. Remove the gate, and move the interior boulder barrier to the beginning of the access road.

- Sprague Pond pipe gate: Replace the pipe gate with a boulder barrier.
- East Inlet bridge: When the bridge over East Inlet near Sagamore Lake requires reconstruction, replace it with a new bridge conforming with APSLMP guidelines.

Reasons Supporting This Determination: In general, the proposals for the management of the BRW and WMPA presented in the UMP are made within the existing framework of Article XIV of the New York State Constitution, which declares that the Forest Preserve "shall be forever kept as wild forest lands," and the Adirondack Park State Land Master Plan, which classifies Forest Preserve lands and sets forth guidelines for the protection and management of the lands in each classification. APSLMP guidelines for wilderness and primitive areas require that they be managed to "achieve and perpetuate a natural plant and animal community" and to permit only those structures, improvements, administrative actions, and types and levels of recreational use that have minimal environmental impacts.

The maintenance of existing structures and improvements in the BRW and WMPA will not involve the use of motor vehicles and generally will be done with hand tools. The limited use of aircraft and motorized equipment, such as chainsaws for cutting blowdown on trails, will be permitted for specific projects with the approval of the Department commissioner. Use of aircraft and motorized equipment will occur during off-peak seasons and generally no more often than once every three to five years in a given location. The use of aircraft and motorized equipment within the Adirondack Subalpine Forest Bird Conservation Area will be minimized during the breeding season of Bicknell's thrush.

Construction and maintenance projects proposed in the UMP will be conducted in accordance with established "best management practices."

All trail construction and relocation projects will incorporate such considerations as:

- Locating trails to minimize tree cutting;
- Locating trails to minimize necessary cut and fill;
- Laying out trails on existing old roads or clear or partially cleared areas where their condition and location meet the goals of trail construction;
- Locating trails away from streams, wetlands, and unstable slopes wherever possible;
- Using 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 bottoms and gentle approach slopes;
- Constructing stream crossings, including bridges where needed for resource protection, 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;
- Avoiding areas where habitats of threatened and endangered species are known to exist;
- Using natural materials to blend bridges and other structures needed for resource protection into the natural surroundings;
- Designing, constructing and maintaining bridges to avoid disrupting the migration or movement of fish and other aquatic life.

All lean-to relocation projects will incorporate 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;
- Using drainage structures on trails leading to lean-to sites to prevent water from flowing into the sites;
- Locating lean-tos on flat, stable, well-drained sites;
- Limiting construction to periods of low or normal rainfall.

All parking area construction and relocation projects will incorporate such considerations as:

- Locating parking areas to minimize necessary cut and fill;
- Locating parking areas to minimize tree cutting;
- Locating parking areas away from streams, wetlands, and unstable slopes wherever possible;
- Locating parking areas on flat, stable, well-drained sites using gravel for surfacing or other appropriate material to avoid stormwater runoff and erosion;
- Limiting construction to periods of low or normal rainfall;
- Wherever possible, using wooded buffers to screen parking areas from roads;
- Limiting the size of a parking area to the minimum necessary to accommodate appropriate levels of interior use.

Tent sites will be constructed to minimize tree cutting, minimize cut and fill and ensure proper separation from one another. They will be located on flat, stable, well drained sites away from wetlands, streams and unstable slopes.

Pit privies will be located to promote sanitation and prevent site degradation. They will be located at least 150 feet from any water source to prevent surface water contamination and will be checked annually.

All fish stocking projects will be conducted in compliance with the *Programmatic Environmental Impact Statement on Fish Species Management Activities of the Department of Environmental Conservation, Division of Fish and Wildlife*, December 1979.

All liming projects will be conducted in compliance with the *Generic Environmental Impact Statement on the New York State Department of Environmental Conservation Program of Liming Selected Acidified Waters*, October 1990, as well as the Division of Fish, Wildlife and Marine Resources liming policy.

All pond reclamation projects will be conducted in compliance with the *Programmatic Environmental Impact Statement on Fish Species Management Activities of the Department of Environmental Conservation, Division of Fish and Wildlife*, June, 1980 and *Programmatic Environmental Impact Statement on Undesirable Fish Removal by the Use of Pesticides Under Permit Issued by the Department of Environmental Conservation, Division of Lands and Forests, Bureau of Pesticide Management*, March 1981.

Building a fish barrier dam on Slim Pond will prevent non-native fish from entering the pond. The dam will be sited at an unobtrusive location to minimize visual impacts. This project will comply with the *Programmatic Environmental Impact Statement on Habitat Management Activities of the Department of Environmental Conservation, Division of Fish and Wildlife*, December 1979.

All tree cutting activities will be conducted in compliance with the Commissioner's Organization and Delegation Memorandum #84-06, "Tree Cutting on Forest Preserve Land" and policy LF-91-2, "Cutting and Removal of Trees in the Forest Preserve."

APA will be consulted during the planning of any project that might affect wetlands. If required, a wetlands permit will be obtained. The permit will include conditions designed to minimize the impacts of the project on wetlands.

Once new trails are constructed or existing unmarked trails are marked and maintained, it is expected that use levels will be relatively low and impacts to soils and vegetation will be minimal. Bridges will be constructed where necessary to protect soils, vegetation and water quality. Anticipated use levels are not expected to have significant impacts on the recreational environment of the area. Opportunities for solitude will be abundant at most locations during all seasons. A large trailless area in the interior of the BRW will be maintained. Ongoing monitoring will assess use impacts, and actions will be taken when necessary to address unanticipated impacts.

New or expanded parking areas at trailheads and waterway access sites will be designed so that parking capacity will not exceed the capacity of the interior to withstand use.

The installation of barriers will afford environmental benefits by helping to prevent illegal motor vehicle use within the area.

The closing and relocation of primitive tent sites, the construction of new lean-tos, and the relocation of existing lean-tos to comply with APSLMP guidelines for separation distances and setbacks from water will afford environmental benefits by reducing the potential for conflicts between visitors occupying adjacent lean-to and tent sites and reducing visual impacts. Anticipated use levels of properly located lean-tos and tent sites is not expected to have significant impacts on vegetation and soils. Ongoing monitoring will assess use impacts, and actions will be taken when necessary to address unanticipated impacts.

The proposal to retain the Wakely Mountain fire tower, observer cabin and helipad constitutes a continuation of existing conditions. Public use levels on the trail and at the summit are anticipated to be lower than other fire tower mountains and impacts to soils and vegetation are not expected to be significant. Because the fire tower is not visible from most vantage points, the retention of the tower and the addition of radio equipment will not have significant visual impacts. The fire tower is listed on the New York State and National Registers of Historic Places. From a historic preservation perspective, the proposal to mount solar panels on the tower to power radio equipment will have a negative impact by affecting the tower's visual integrity. However, because the panels will be mounted in a way that will not significantly alter the tower's original structure, the impact is not considered to be significant.

The retention of the ruins of structures associated with Camp Sagamore and included in Sagamore's National Historic Landmark designation will not have significant environmental impacts. The former hydroelectric dam on the Sagamore Lake outlet is small and completely breached. It does not impound water and, therefore, does not pose a threat of failing and causing downstream flooding, sedimentation or other damage. It does not impede the movement of fish or other aquatic species. The dam, valvehouse and powerhouse are not visible from major vantage points. They are well screened from a lightly-used nearby foot trail. The dam and valvehouse are visible to those who fish the river. The visual impact of the structures, situated less than half a mile from a public highway, is less significant than it would be farther in the interior of the wilderness.

Considering the ruins as historic resources, the proposal to retain them will not have direct negative impacts. However, the decision to allow them to deteriorate naturally will result in their eventual loss. The deterioration of the ruins through the operation of natural processes is considered appropriate in the context of their wilderness environment.

Proposed public use regulations will have environmental benefits by reducing the impacts caused by large groups, upper elevation camping, campfires near roads, trails and water, loud radios, the improper use of soap and detergent, the improper disposal of food, the use of motorized equipment, the unauthorized construction and marking of trails, unattended pets, the erection of unauthorized signs, the failure to protect food from bears, the use of glass containers, the storage of personal property and the use of motor vehicles.

Proposals to increase access for people with disabilities will not have significant impacts. Accessibility measures will focus on providing information and altering the designs of conforming structures. They will not include actions involving significant modifications to the ground surface or to other features of the natural environment

Proposals to remove nonconforming uses will afford environmental benefits by preventing public and administrative uses, such as motor vehicle use, and removing structures that do not conform with wilderness guidelines.

None of the proposals in the UMP is expected to have significant impacts on wildlife. No endangered or threatened species of animals or plants have been identified in the unit. Loons, classified as species of special concern, have been found on Sagamore Lake and Sprague Pond. Proposals for the construction or relocation of trails, tent sites or lean-tos will be designed to minimize impacts on nesting loons.

For Further Information, Contact:

Supervising Forester Richard Fenton
New York State Department of Environmental Conservation
P.O. Box 1316, 701 S. Main Street
Northville, NY 12134
(518) 863-4545 x 3002
rtfenton@gw.dec.state.ny.us

A Copy of This Notice Sent To:

Denise M. Sheehan, Commissioner
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-1011

Stuart Buchanan, Regional Director
New York State Department of Environmental Conservation
Region 5
Route 86, P.O. Box 296
Ray Brook, NY 12977-0296

Mr. Richard H. LeFebvre, Chairman
Adirondack Park Agency
P.O. Box 99
Ray Brook, NY 12977

Mr. Barry Hutchins, Supervisor
Town of Indian Lake
P.O. Box 730
Indian Lake, NY 12842

Mr. Richard Wilt, Supervisor
Town of Arietta
P.O. Box 37
Piseco, NY 12139

Mr. Frank Mezzano, Supervisor
Town of Lake Pleasant
P.O. Box 799
Lake Pleasant, NY 12108

Mr. Gregg Wallace, Supervisor
Town of Long Lake
P.O. Box 307
Long Lake, NY 12847

Acting Mayor David McComb
Village of Speculator
P.O. Box 396
Speculator, NY 12164

APPENDIX 19 – BIBLIOGRAPHY AND REFERENCES

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APPENDIX 20 – MAPS

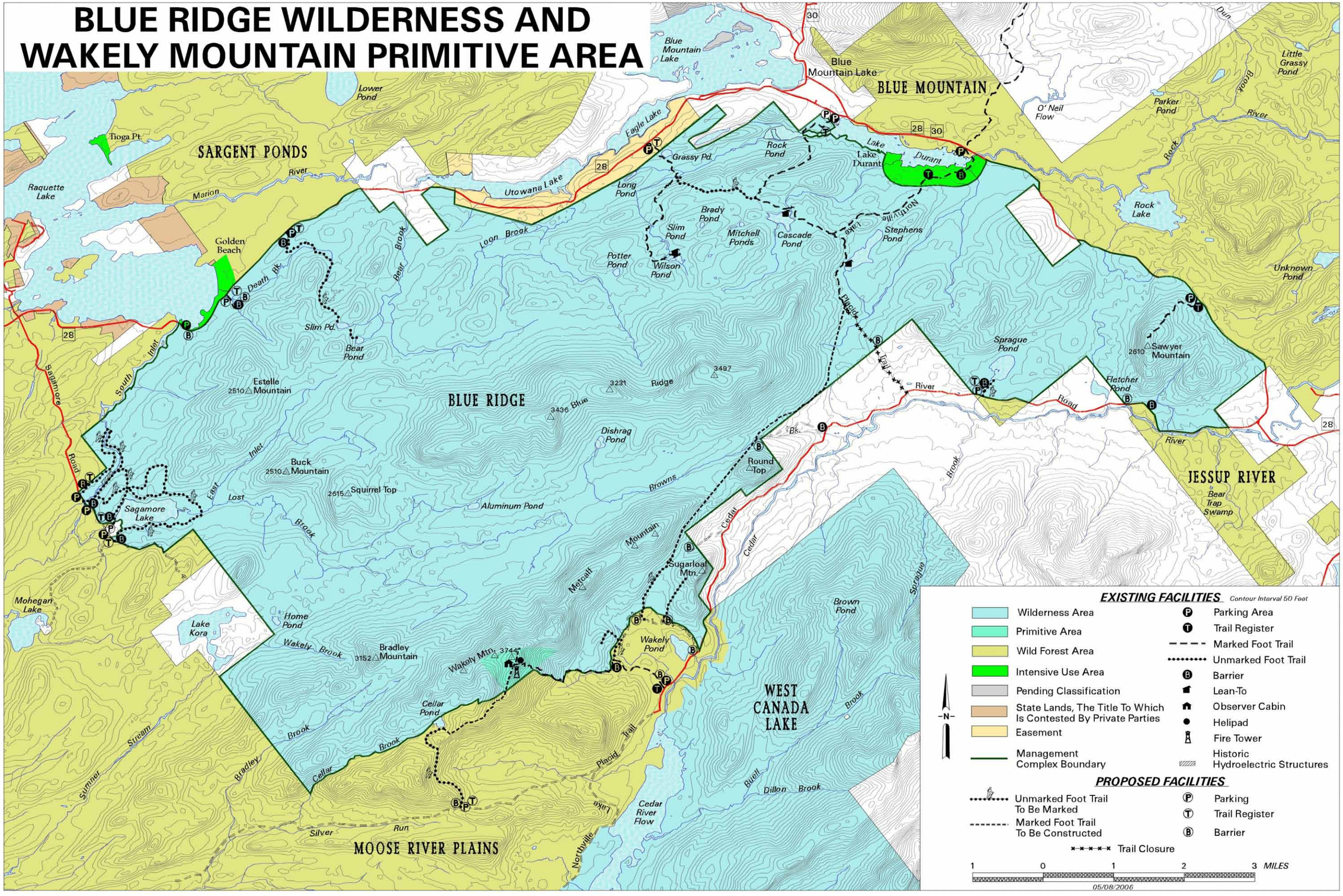
Map 1: Blue Ridge Wilderness and Wakely Mountain Primitive Area - Existing and Proposed Facilities

Map 2: Historic Great Camps Special Management Area

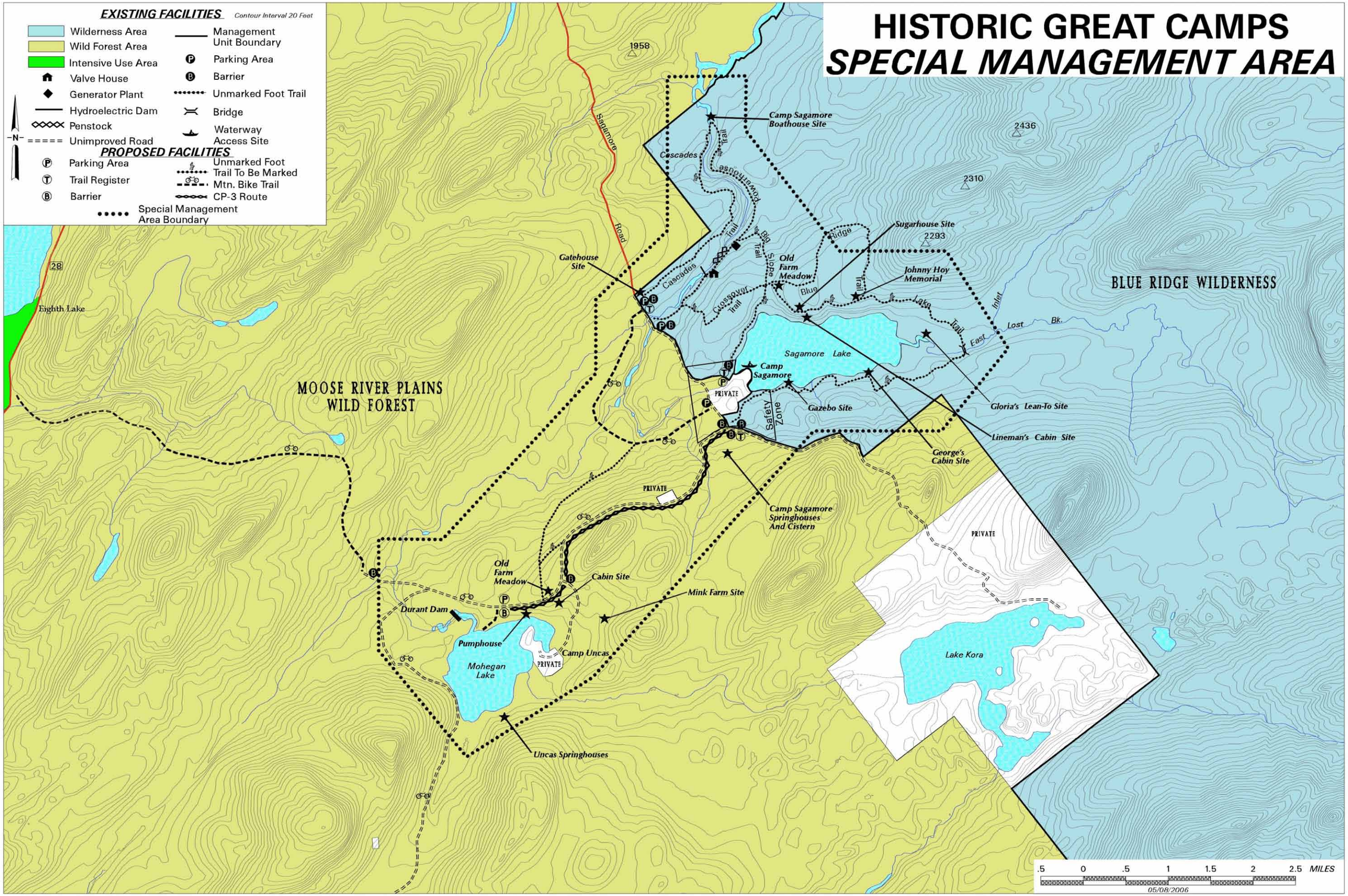
Map 3: Blue Ridge Wilderness - Documented Terrestrial and Aquatic Invasive Plant Species

Map 4: Northville-Lake Placid Trail Relocation - Least Cost Path Analysis

BLUE RIDGE WILDERNESS AND WAKELY MOUNTAIN PRIMITIVE AREA



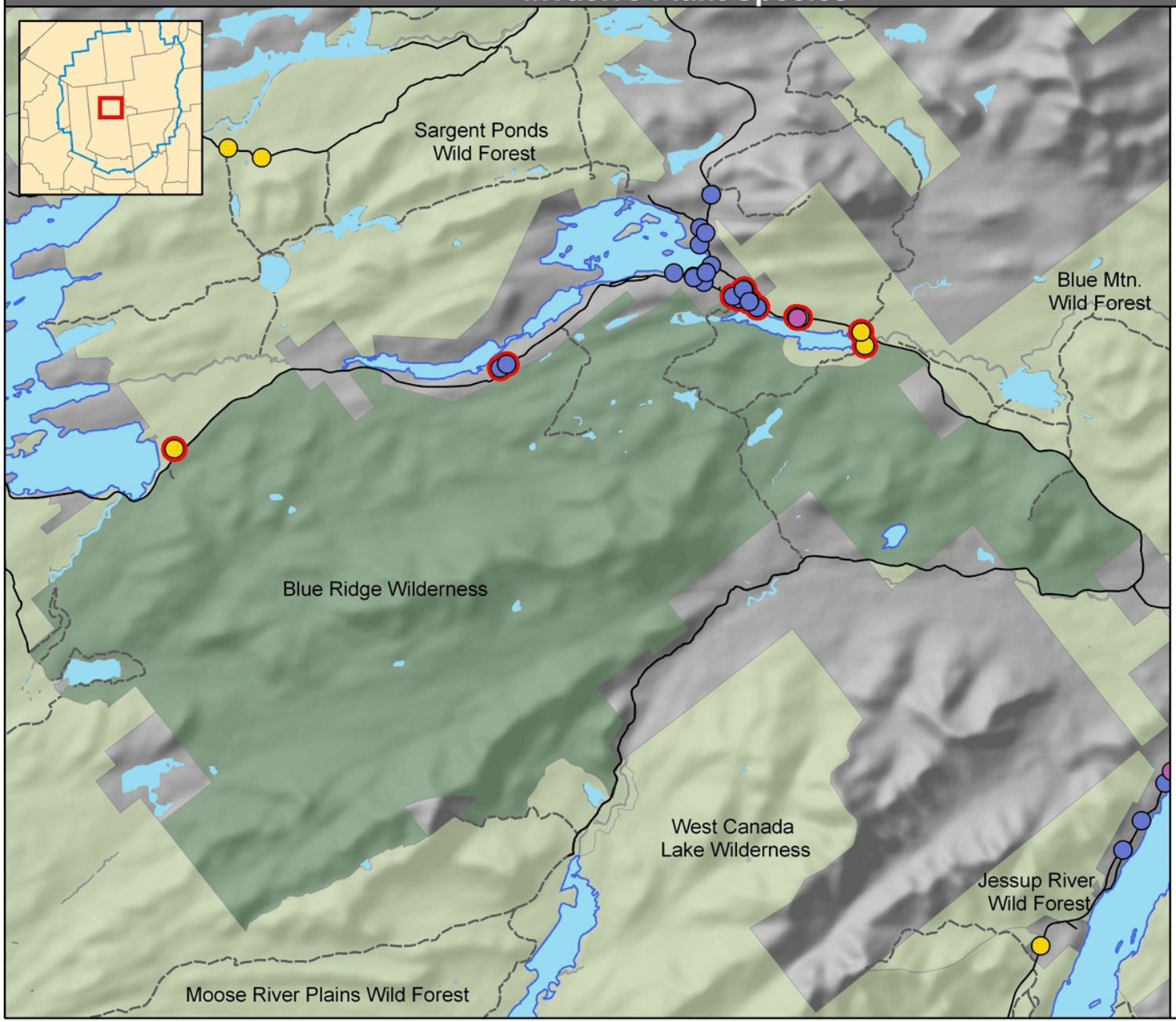
HISTORIC GREAT CAMPS
SPECIAL MANAGEMENT AREA



Blue Ridge Wilderness

Documented Terrestrial & Aquatic Invasive Plant Species

New York State Department of Environmental Conservation



Legend

- Trails
- Blue Ridge Wilderness
- Other Public Lands

Terrestrial Invasive Plants*

- Garlic Mustard
- Japanese Knotweed
- Phragmites
- Purple Loosestrife

Occurrences highlighted in red are of immediate concern to Blue Ridge Wilderness.

Aquatic Invasive Plants

- No Infestation Found
- Infested Lake
- No Data

Phragmites

Garlic Mustard

Japanese Knotweed

Purple Loosestrife

N

0 0.5 1 2 Miles

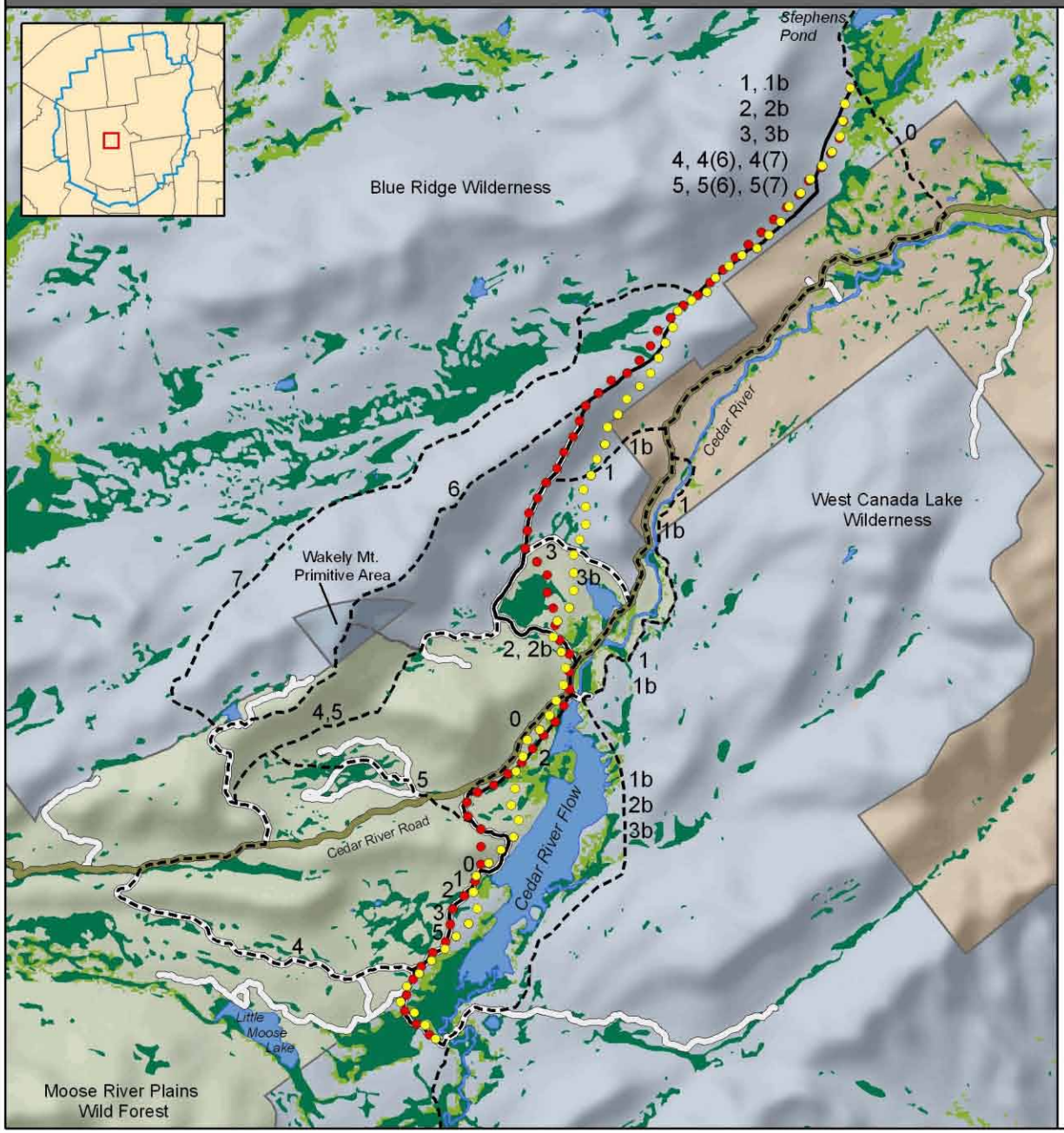
Scale 1:140,000
1 inch = 2.2 Miles

Map produced by the SUNY-ESF Adirondack Ecological Center under the auspices of the UMP-GIS consortium.
Photos used with permission of The Nature Conservancy.
Ownership boundaries are not for legal use.
4/26/06

Adirondack Forest Preserve

Northville-Lake Placid Trail Relocation

New York State Department of Environmental Conservation



Least Cost Path Analysis

Legend

- UMP Trail Relocation Alternatives
- Preferred Alternative
- LCP 1
- LCP 2

Roads

- Existing Road
- Former Roads

Natural Features

- Potential Deer Yard
- APA Covertype Wetlands

Land Classification

- Wilderness
- Wild Forest
- Primitive
- Private

Cost Path Parameters

LCP1 did not consider the cost of new trail construction.
LCP2 assigned lower costs to existing roads and trails.

Factor	Cost LCP1	Cost LCP2
Potential Deer Yards	1	1
Wetlands		
Wetland	5	5
1-25m from wetlands	3	3
25-100m from wetlands	2	2
Erodibility		
High	3	3
Moderate	1	1
Slope (degrees)		
0-5	1	1
5-10	2	2
10-15	3	3
15-25	4	4
>25	5	5
Existing Roads/Trails		
Motor Accessible	0	3
Road-like character	0	2
Trail-like character	0	1
None	0	4

N

0 0.5 1 2 Miles

Scale 1:95,000
1 inch = 1.5 Miles

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