

New York State

Department of Environmental Conservation



Division of Lands & Forests

**NORTHERN PIEDMONT
UNIT MANAGEMENT PLAN**

DRAFT

Town(s) of White Creek, Jackson, and Greenwich
Washington County, New York

JULY, 2013

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PREFACE

It is the policy of the Department of Environmental Conservation (DEC) to manage state lands for multiple benefits to serve the people of New York State. This Unit Management Plan is the first step in carrying out that policy. The Department conducts management planning on State lands which will maintain ecosystems by providing a wide array of benefits for current and future generations. This Unit Management Plan for State Forests of Washington County is comprised of five state forests and a wildlife management area and is the basis for supporting a multiple-use goal through the implementation of specific objectives and management strategies. This management will be carried out to ensure the sustainability, biological improvement and protection of the Unit's ecosystems and to optimize the many benefits to the public that these State Lands can provide. The multiple-use goal will be accomplished through the applied integration of compatible and sound land management practices.

The plan is based upon a long-range vision for the management of the area. Specific goals and objectives to support that vision are based upon the rapidly evolving principles and technologies of ecosystem management and the increased demands for public use benefits. The plan has been developed to address management activities on this unit for the next 10 year period, with a review due in 5 years. Some management recommendations may extend beyond the 10 year period. It should also be noted that factors such as fluctuating wood product markets, budget and staffing constraints and forest health problems may necessitate deviations from the schedule based on the judgment of the respective Regional Foresters.

Article 9, Titles 5 and 7 of the Environmental Conservation Law authorize the Department of Environmental Conservation to provide for the management of lands acquired outside the Adirondack and Catskill Parks. Management as defined by these laws, includes watershed protection, the production of timber and other forest products, recreation and kindred purposes. The State Forest Land Master Plan provides direction and a framework for meeting this legal mandate. The Washington County State Lands Unit Management Plan will conform to the objectives, guidelines and policies set forth in the Master Plan.

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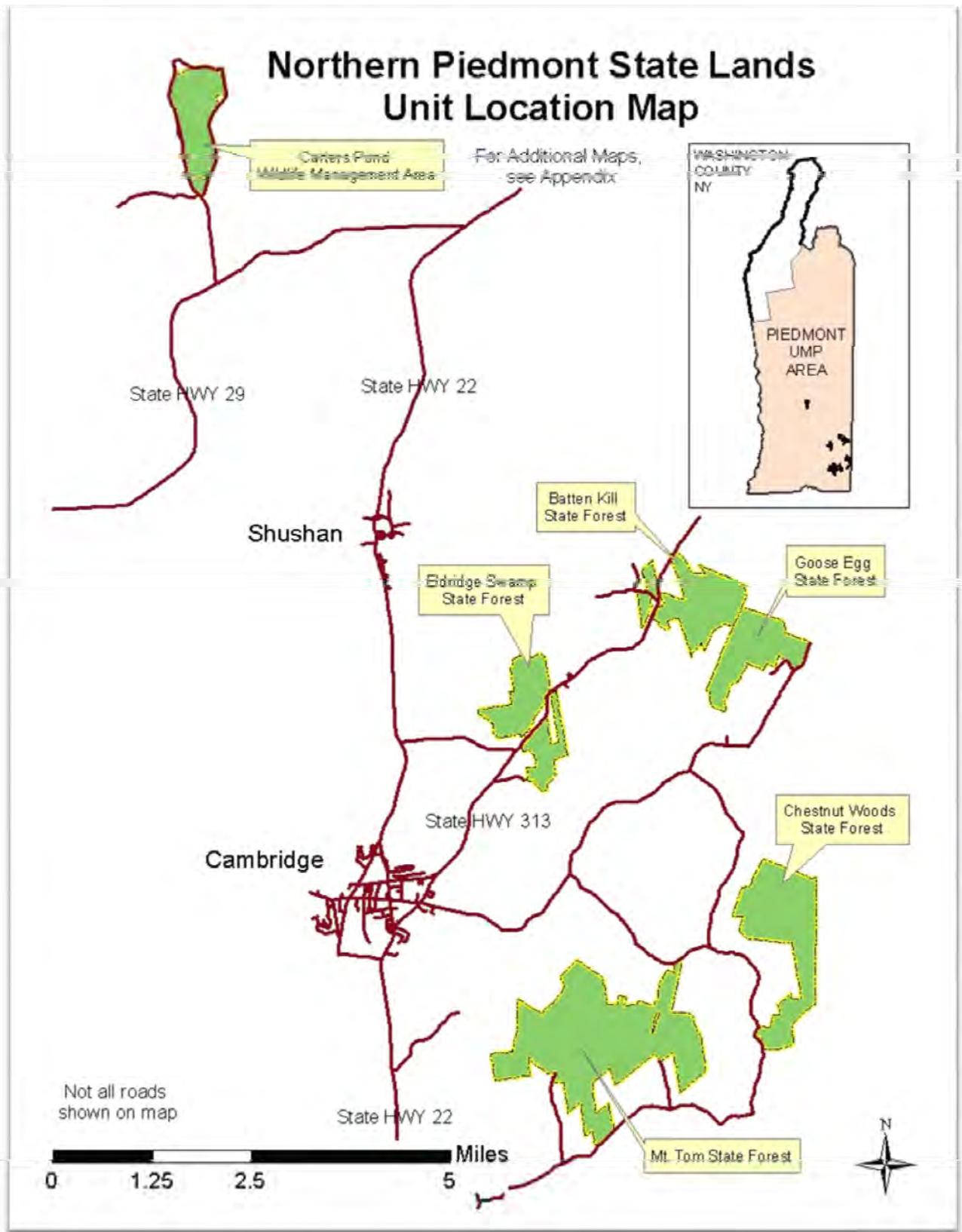
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LOCATION MAP



INTRODUCTION

History of State Forests and Wildlife Management Areas

The Forest Lands outside the Adirondack and Catskill regions owe their present character, in large part, to the impact of pioneer settlement. Following the close of the Revolutionary War, increased pressure for land encouraged westward expansion. Up to 91% of woodlands were cleared for cultivation and pasture.

Early farming efforts met with limited success. As the less fertile soils proved unproductive, farms were abandoned and settlement was attempted elsewhere. The stage of succession was set and new forests of young saplings reoccupied the ground once cleared.

The State Reforestation Law of 1929 and the Hewitt Amendment of 1931 set forth the legislation which authorized the Conservation Department to acquire land by gift or purchase for reforestation area. These State Forests, consisting of not less than 500 acres of contiguous land, were to be forever devoted to "reforestation and the establishment and maintenance thereon of forests for watershed protection, the production of timber, and for recreation and kindred purposes." This broad program is presently authorized under Article 9, Title 5 of the Environmental Conservation Law.

In 1930 Forest Districts were established and the tasks of land acquisition and reforestation were started. In 1933 the Civilian Conservation Corps (CCC) was begun. Thousands of young men were assigned to plant millions of trees on the newly acquired State Forests. In addition to tree planting, these men were engaged in road and trail building, erosion control, watershed restoration, forest protection and other projects.

During the war years of 1941-1945, very little was accomplished on the reforestation areas. Plans for further planning, construction, facility maintenance, and similar tasks had to be curtailed. However, through postwar funding, conservation projects once again received needed attention.

The Park and Recreation Land Acquisition Act of 1960, and the Environmental Quality Bond Acts of 1972 and 1986 contained provisions for the acquisition of State Forest lands. These lands would serve multiple purposes involving the conservation and development of natural resources, including the preservation of scenic areas, watershed protection, forestry and recreation.

Wildlife management areas in New York, like state forests, have a varied history of acquisition. Many were gifted to New York State by the Federal Government or other cooperating public or private organizations. Some parcels were purchased with Bond Act funds or Federal Aid in Wildlife Restoration Program funds. The latter which is commonly called the Pittman-Robertson Act is a federal fund supported by hunters from the purchase of hunting licenses, firearms and ammunition.

Today there are over 790,000 acres of State Forest Land throughout the State and over 200,000 acres of wildlife management areas throughout the state. The use of these lands for a wide variety of purposes such as timber production, hiking, skiing, fishing, trapping and hunting

is of tremendous importance economically and to the health and well-being of the people of the State.

Local History

The towns of White Creek and Jackson are rich with history. Earliest archeological evidence of habitation is that of the Native Americans. "The native Indians of White Creek were the Hoosacs, sometimes referred to as the Horicons. They were a sub-tribe of the Mohicans. The chief village of the Hoosacs was within the confines of the Town of White Creek, along the Hoosick River on the meadowland above the Owl Kill." (Washington County Planning Department 1976) First Europeans believed to visit this area were French explorers. "In the springtime of 1540, the Mohican villages along the Mohican River, later called the Hudson, were visited by French explorers. These visitors were looking for furs which they could exchange for trinkets and cheaply made goods. The trading expedition was headed by Captain Jean Fonteneau, also referred to as Allefonsce of Saintongue, chief pilot to Francis I of France. Miss Grace Niles, author of *The Hoosac Valley*, wrote that Captain Fonteneau and his Saintongue crew became the first Europeans of record to set foot on the soil of the Town of White Creek." These explorers were also credited with giving this town the name of White Creek in reference to the white quartz pebbles found in the bed of the stream. (WCPD 1976) During the stay of Captain Fonteneau and his crew, a chapel and mission school were erected in an area located partly in the town of White Creek and partly in the town of Hoosick.

Following Henry Hudson's voyage in 1609 settlements formed in Albany around 1614 and by 1660 scattered homesites were springing up in the area including at least one in the town of White Creek. Shortly after 1676 "The Pequot Sachem, Mawwehu, with 250 warriors, a fugitive of Old King Philip's New England uprisings, fled over the old Mohawk Trail and settled with their kindred, the Mohicans, along the Hudson, and shortly thereafter settled in White Creek. Mawwehu and his tribe joined Soquon's Schaghticokes, formerly the Hoosacs. They built their village along the Pompanac Rivulet in the Taconac Hills of White Creek. This is the origin of Pumpkin Hook." In 1688 the English and the Schaghticoke Indians worked out a patent covering 70,000 acres of land including a portion of White Creek, "The Hoosac Patent" "In return for relinquishing their claim, the Schaghticokes received a quantity of duffels, shirts, hose, blankets, guns, powder, lead, rum, beer wine, tobacco and pipes." (WCPD 1976) In 1709 Arent VanCorlaer built a home and trading post under the summit of Quaker Hill in White Creek, it was located along an Indian trail that led from Lake Champlain to Naragansette Bay, Massachusetts this site was a very convenient location in the fur trade. Through 1765 additional patents encompassing White Creek took effect and military grants were issued by Gov. Wentworth of New Hampshire, at this time more people began moving into the area, homesteads were built and businesses sprang up, mainly along the waterways of the area. Some of those interesting businesses included a hat shop, grist mill, trip hammers to produce sythes and hoes, a lime kiln, and chair factory (WCPD 1976) Some other early businesses in this area included a clock factory, comb factory, woolen mill, fulling mill and a distillery. (Johnson 1878) Stone remains exist on Mt. Tom State Forest which may be the remains of the earlier mentioned lime kiln.

The town of Jackson as with the surrounding area had a very rich Native American history and was settled by pioneers about 1761-1765 (Johnson 1878) "Jackson was formed from Cambridge on April 17, 1815, and named for General Andrew Jackson, the victor of New Orleans and then hero of the nation." (WCPD 1976) Jackson, was home to many covered bridges. "Spanning the beautiful Battenkill at one time were six covered bridges, the ones at Rexleigh, Shushan and Eagleville still remaining. Of the other three, one was in Battenville

(gone in 1916), one was on Route 313, McLean's Bridge, and the Red Bridge at Pinelands on the Turnpike south of Salem, which was destroyed in the flood of 1927." (WCPD 1976) The Eagleville Covered Bridge located adjacent to the Batten Kill State Forest was built in 1858 by Ephraim W. Clapp and spans 101 feet over the Batten Kill River. Rehabilitation work was completed on the bridge within the last few years. The Eagleville Bridge, although not as old as some of the existing barns and other historic structures of the area is a unique structure and an important link in American history. Still in use, the bridge acts as a functional testament to the skill and workmanship of Ephraim Clapp all those years ago. It appears there are six sound reasons why bridges were covered:

"To keep water out of the joints, where it might freeze during winter or cause rotting during summer.

To keep the roadway dry, for the inner floor was often oiled and was slippery if it became wet from rain.

To strengthen the structure; the added weight more than made up its bulk by making the bridge more solid.

To give the bridge a barn appearance; farm animals did not relish crossing a rushing river and were more liable to run and not walk.

To keep the bridge from drying out and loosen, causing it to creak and sag.

To keep the snow off; although this was the commonest reason given, it does not seem the best. It is true that during a heavy snowfall, although the highway could be cleared, an open bridge would keep the snow "encased." During most snowfalls, it was necessary for the toll-keeper to "snow-pave" the interior for everyone used sleds during the winter in those days." (Sloane 1954)

A small cemetery also exists near the intersection of Route 313 and Eagleville Rd. The cemetery has been overgrown for years and contains the remains of broken gravestones. Some research has been done on this cemetery by Richard M. Wilson of South Glens Falls, NY. "In the spring of 1770 Philip Embury and a group of his friends leased land on the north side of the Batten Kill River in an area that to this day is known as Camden Valley. The land was known as the Duane Patent. Philip Embury had lots 1, 2, and 3 at the very south end of the Patent along the banks of the Batten Kill. This was north of the present hamlet known as Eagleville and to the northwest of this cemetery. The following was copied from Eula Lapp's book "To Their Heirs Forever" (1970) (Page 110): "Philip Embury, before his death in 1773, along with all his other activities, had been building what he intended as a permanent home. With his brother-in-law and his family established on his Camden farm, along with his own wife and children, there was little chance for peace and quiet! He began to erect a house across the Battenkill. It was not far from his farm on Duane's Patent.

Although the new home was hardly completed, after the death of her husband, Margaret Embury moved there with her four children, leasing the house and farm in Camden Valley to her brother, Peter Switzer. Peter sent Catherine Lowe to live with Margaret. (Once, Embury had interceded on the girl's behalf when he felt she was being overworked. It was a kindness which Catherine Lowe never forgot.) She became a staunch friend to Margaret Embury and her fatherless children. If Margaret Embury had any comfort from her new home, it was of short duration. More sorrow was in store for the already burdened young mother.

After losing two children in New York, when they came north the Emburys had five-year-old Samuel; three-year-old Catherine; and Anna, about one. On April 13, 1772, another son Philip Jr., was born to them. Sometime between August 1773 (when Philip Sr. Died) and July 1775, the two youngest Embury children succumbed. Little Anna and Philip Jr. Were buried near the

new house, on the north side of the road connecting Eagleville and the present Cambridge-Arlington road.” (Wilson 2003)

Presently there are remains of at least half a dozen gravestones in this small, overgrown cemetery. Perhaps in the future, this cemetery can be reclaimed and refurbished so that this historic site may be preserved and lend insight to the history of the area. The DEC would welcome entering into an agreement with an individual or an organization that might be interested in volunteering to refurbish or maintain this important site.

Land acquisition history:

<u>Forest</u>	<u>Year</u>	<u>Acres</u>	<u>Previous owners</u>
Washinton #1 (Mt. Tom)	1933	416.48 acres	J. Grant and Sarah Sweet
	1941	238.37 acres	Patrick and Bridget McDonnell
	1933	42.85 acres	William Lawton
	1933	42.04 acres	Thomas and Margaret McAllen
	1964	9.4 acres	Florence N. Niles
	1968	26 acres	Martha R. Nolan
	1964	8.28 acres	Malcolm Telford
	1967	65.99 acres	County of Washington
	1964	4.64 acres	Harry Russell
	1968	9.31 acres	County of Washington
	1962	180.1 acres	S. Lewis and Eva Hunt
	1963	196.57 acres	Eleanor Robertson Potter
	1963	11.79 acres	Silas and Doris Harrington
	1963	11.36 acres	John and Mary Niles
	1965	14.09 acres	Bertha P. and John W. Donnan
	1969	9.31 acres	S. Lewis and Eva Hunt
	1963	15.05 acres	Harry Russell
	1964	10.43 acres	County of Washington
	1965	10.38 acres	Bertha P. and John W. Donnan
	Washington #2 (Chestnut Woods)	1933	81.71 acres
1933		337.59 acres	William and Nellie Decker
1933		39.63 acres	Theodore and Evelyn Vetrano
1933		97.65 acres	Julius F. and Mary B. Bennett
1965		244.7 acres	Leroy Bennett
1964		119.56 acres	Charles F. and Kathleen F. Niles
1964		62.02 acres	Walter A. and Lillian N. Harrington
Washington #3 (Goose Egg)		1964	92.70 acres
	1964	382.6 acres	Ralph J. and Dorothy E. Warren
Washington #4	2000	535 acres	The Trust For Public Land (Bentley)

(Batten Kill)	1940	1 acre	Graham and Pearl Sutherland (PFR)
Washington #5 (Eldridge Swamp)	2005	512.2 acres	Stanley E. McLenithan
Carter's Pond WMA	1976	446.28 acres	Leland R. Robertson William Robertson Lionel and Lela Clough Washington County Leonard J. and Chantel Richall Jack and Hannelore Gourlay Estate of Nelson S. Pratt James S. and Gordon R. Bodkin Samuel and Florence Mc Morris Anna Upton Helmer Thygesen Frederick and Nina Blood

INFORMATION ON THE UNIT

Geographic and Geological Information

The lands covered in this Unit Management Plan include five State Forests and one Wildlife Management Area. The state land units are as follows:

Northern Piedmont State Lands		
State Forest #	State Forest Name	Acres
Washington # 1	Mt. Tom State Forest	1724
Washington # 2	Chestnut Woods State Forest	801
Washington # 3	Goose Egg State Forest	456
Washington # 4	Batten Kill State Forest	535
Washington # 5	Eldridge Swamp State Forest	515

State Forest Total: 4031

Wildlife Management Unit	Acres
Carter's Pond Wildlife Management Area	445

Total State Land Acres: 4476

Note: Acreages may vary throughout this plan due to discrepancies between surveyed acres, tax parcel information, and GIS mapped acres.

Mt. Tom State Forest, the largest of the units is located in the town of White Creek. The forest is approximately 1,724 acres in size with 6.6 miles of boundary line. Located approximately 3.5 miles southeast of the Village of Cambridge, the forest is bounded on the north by Chestnut Hill Rd, where a narrow portion of the forest meets the road at an intersection with Notch Truck Trail. From this intersection the Notch Truck Trail heads south through Mt. Tom State Forest. The truck trail leaves the south end of the forest and the road eventually intersects with Lincoln Hill Rd. The east-west Lincoln Hill Rd forms a portion of the southernmost boundary of the state forest. Along Lincoln Hill Rd to the west, another road heads north into the forest. This road is Shaker Hollow Rd and comes to a fork before it enters the state forest. The left fork of this road encounters a gate. Beyond the gate, the center of the road is the state land boundary to a point further up the hill the road then enters and eventually exits the state forest before ending at an FAA radio tower which is located on private land. This road is blocked with a barricade and public use of motor vehicles is not allowed. The right fork, Shaker Hollow Truck Trail, continues into the Mt. Tom unit to the north, providing vehicular access to the central portion of the unit. Shaker Hollow Truck Trail eventually becomes less maintained and ends at the state boundary with private land. Land elevations in this forest range from 780 feet to a high point of

approximately 1560 feet above sea level. Drainages and streams in the eastern portion of Mt. Tom State Forest eventually drain into the Walloomsac River which flows into the Hoosic River which then flows to the Hudson River. The western portion of Mt. Tom State Forest eventually drains into the Hoosic River which then flows into the Hudson River.

Chestnut Woods State Forest is approximately 801 acres in size with 4.5 miles of boundary line and is located to the east of Mt. Tom State Forest in the town of White Creek. Chestnut Woods is bounded on the East by the state boundary with Vermont. The forest is long north to south, and is narrowest east to west on the southern half of the unit. The southernmost tip of the forest is bounded on the west by Chestnut Hill Rd. where one access to this unit is located. Another access to the forest is located further to the north along the Chestnut Hill Rd. The range in elevation on this forest is from 880 feet to approximately 1960 feet above sea level. Drainages and streams in the Chestnut Woods State Forest eventually drain into the Walloomsac River which flows into the Hoosic River which then flows to the Hudson River.

Goose Egg State Forest is approximately 456 acres in size with 3.4 miles of boundary line and is located in the towns of Jackson and White Creek. The forest is bounded on the east by Bates Rd. where an access road into the property exists. This property ranges in elevation from approximately 1160 to 1927 feet above sea level. The northwest corner of this forest is adjacent to the Batten Kill State Forest. Drainages and streams over most of Goose Egg State Forest eventually drain into the Hoosick River which then flows into the Hudson River.

The Batten Kill State Forest, located in the town of Jackson, is approximately 535 acres in size with 5.3 miles of boundary line. A northeast portion of the Batten Kill State Forest is bounded by the Batten Kill River. State Route 313 travels north and south through the state forest dividing the larger piece of land on the East from a smaller portion of land on the west. The western portion is then further divided by the Eagleville Rd. which travels in an east – west direction. The range in elevation across this forest is from approximately 460 to 1640 feet above sea level. Drainages and streams in the Batten Kill State Forest drain directly into the Batten Kill River which then flows into the Hudson River.

Eldridge Swamp State Forest is approximately 515 acres in size and has 7.83 miles of boundary line. Eldridge Swamp State Forest is located in the town of Jackson north of the village of Cambridge and is bisected by State Route 313 which runs in a northeast direction. The upland portion of this state forest is located on the south east side of Route 313. The low land portion of this state forest which makes up part of Eldridge Swamp is located on the north west side of Route 313. Elevations on the property range from a low of about 460 feet above sea level to a high point of 1060 feet above sea level. This state forest drains into the Batten Kill River and eventually into the Hudson River.

Carters Pond Wildlife Management Area, located in the town of Greenwich, is approximately 445 acres in size with 3.3 miles of boundary line. This parcel was purchased from a number of owners at a cost of approximately \$157,550 in 1976. The majority of Carters Pond is bounded by roads: Mill Road on the north, State Route 338 on the west and Ferguson Rd. on the east. This area does not have much of a change in elevation with the low at approximately 438 feet and the high at approximately 520 feet above sea level. An earthen dam on Whittaker Brook was constructed in 1991 to raise and maintain the water level on the Carter's Pond WMA. Carter's Pond eventually drains into the Batten Kill River which flows into the Hudson River.

Climate conditions for the area can be characterized as a humid continental climate with a wide range of temperatures and a moderately heavy total annual precipitation. Information recorded for the town of White Creek, NY shows an average yearly temperature of 46 degrees

Fahrenheit, a yearly average of 78.6 rainy days and 45.4 inches of precipitation, 160.3 days per year on average that are below 32 degrees Fahrenheit, and an average annual snowfall of 58.4 inches. (Weather averages for White Creek, NY)

These five State Forests and Wildlife Management Area are located in the Lower New England / Northern Piedmont Ecoregion. Ecoregions as defined by the Nature Conservancy are areas of ecological homogeneity, which are characterized by similarities in soil, physiography, climate, hydrology, geology and vegetation. More information on ecoregions can be found in the Strategic Plan for State Forest Management which is located on the DEC website at: <http://www.dec.ny.gov/lands/64567.html>

High Conservation Value Forests

High Conservation Value Forests (HCVF) are those portions of State Forests which have known high conservation values that the Department feels should take precedent over all other land use and management decisions. HCVFs may not be identified on every Unit and State Forests that have an HCVF designated will not necessarily have multiple classifications. Areas that are identified as having exceptional values may be managed for timber, wildlife and/or recreation, however management activities must maintain or enhance the high conservation values present. Currently, HCVFs are assigned to one or more of five land classifications, four of which may be found on State Forests:

1. Rare Community - Forest areas that are in or contain rare, threatened or endangered ecosystems.
2. Special Treatment - Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, and refugia).
3. Cultural Heritage – Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and are critical to their traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).
4. Watershed - Forest areas that provide safe drinking water to local municipalities.
5. Forest Preserve* - Forest areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.

**Forest Preserve lands inside both the Adirondack and Catskills Park Blue line. Although Forest Preserve is not considered State Forest, they offer a significant high conservation value for lands managed by the Department.*

Portions of the Northern Piedmont Unit have been identified as having high conservation value. Acreage totals for designated HCVFs located within the unit can be found in the appropriate

sections below. For more information on HCVPs please go to <http://www.dec.ny.gov/lands/42947.html>.

Vegetative Types and Stages within the Unit

The vegetation in the Washington County State Forests is best characterized as a Northern Hardwood Forest with a significant component of white pine, oak and hemlock predominantly pole and small sawtimber sized. The Northern Hardwood component includes hard and soft maple, white ash, birches, oaks and to a lesser extent basswood, butternut, hickory, aspen, beech and various other species. Many hilltops in these units exhibit a significant oak component, primarily chestnut oak, while on many steep slopes and wet lowlands hemlock stands are prevalent. White pine is mixed throughout, sparsely in some locations, while forming some natural stands of which it is the sole species. Stands of pioneer species found in these state forests point to more recently abandoned farmland, while some upland oaks and swamp hardwoods exhibit significant age.

Carter's Pond Wildlife Management Area is predominantly wetland. The northern portion of this WMA around the open pond is a large wetland hardwood stand of pole timber size. Red maple is the dominant species of this wetland hardwood stand comprising 62%. Other species present to a lesser extent are black ash, white ash, elm and black birch along with various other species. The south end of this WMA is occupied by a Northern Hardwood stand of small sawtimber size. This stand also has a fairly large red maple component at 39%. White pine, hard maple, white ash and black cherry are the next most common species found in this stand. In addition to the wetland, forested wetland, and Northern Hardwood stand are approximately 100 acres of brushy fields associated with this WMA which have been under various mowing regimes throughout the history of this parcel.

Washington County State Forests

Vegetative Type	Acres by Size Class				% of Total
	0-5 in	6-11 in	12+ in	Other	
Natural Forest Hardwood		2562	379		72.4%
Natural Forest Conifer		78	14		2.3%
Plantation		58	186	31 s/o	6.8%
Wetland				174	4.3%
Ponds					
Open / Brush				233	5.7%
Other (Roads, Parking lots, etc.)				347	8.5%
Total (Acres)		2698	579	785	4062

Carter's Pond Wildlife Management Area

Vegetative Type	Acres by Size Class				% of Total
	0-5 in	6-11 in	12+ in	Other	
Natural Forest Hardwood		173	50		50.2%
Natural Forest Conifer					0%
Plantation					0%
Wetland				103	23.1%
Ponds				22	4.9%
Open / Brush				95	21.3%
Other (Roads, Parking lots, etc.)				2	0.5%
Total (Acres)		173	50	222	465

Representative Sample Areas

Representative Sample Areas (RSA) are stands which represent *common* ecological communities (i.e. forest types) of high or exceptional quality in their natural state. RSAs are setup to serve one or more of the following purposes:

1. To establish and/or maintain an ecological reference condition; or
2. To create or maintain an under-represented ecological condition (i.e. includes samples of successional phases, forest types, ecosystems, and/or ecological communities); or
3. To serve as a set of protected areas or refugia for species, communities and community types not captured in other protection standards such as an endangered species or a High Conservation Value Forest.

RSAs can simply be viewed as an effort to keep high quality examples of common ecosystems or assemblages from becoming rare in the landscape. An RSA designation does not prevent future management and in certain cases might require silvicultural treatment to achieve site conditions that will perpetuate the representative community. In addition, treatment of an RSA to mitigate unfavorable conditions that threaten the continuation of the target community will be allowed (ex. fire, natural pests or pathogens). Although allowed, silvicultural treatment or infrastructure development should not impact the RSA in a way that will degrade or eliminate the viability of the specific assemblage or community. For more information on RSAs please go to <http://www.dec.ny.gov/lands/42947.html>.

Table I.E. – RSAs and Rare Community HCFVs within the Unit

Community Name	Vegetative Type	Facility Name / Stand Numbers	NYNHP Rank	Acreage
Representative Sample Areas of Commonly Occurring Natural Communities				
Spruce-fir swamp		Eldridge Swamp SF, stand #s: 6,8	AB	60
Rare Community HCVF				
		Mt. Tom SF		3

Resource Protection Areas

In the course of practicing active forest management, it is important to identify areas on the landscape that are either reserved from management activity or where activity is conducted in such a manner as to provide direct protection and enhancement of habitat and ecosystem functions. For more information on these protective measures, see SPSFM page 85 at <http://www.dec.ny.gov/lands/64567.html>.

Special Management Zones (SMZs) provide continuous over story shading of riparian areas and adjacent waters, by retaining sufficient tree cover to maintain acceptable aquatic habitat and protect riparian areas from soil compaction and other impacts. DEC's buffer guidelines also maintain corridors for movement and migration of all wildlife species, both terrestrial and aquatic. Buffers are required within SMZs extending from wetland boundaries, high water marks on perennial and intermittent streams, vernal pool depression, spring seeps, ponds and lakes, recreational trails, campsites and other land features requiring special consideration. For more information regarding Special Management Zones please see http://www.dec.ny.gov/docs/lands_forests_pdf/sfsmzbuffers.pdf

"The identification of large, unfragmented forested areas, also called matrix forest blocks, is an important component of biodiversity conservation and forest ecosystem protection. In addition, securing connections between major forested landscapes and their imbedded matrix forest blocks is important for the maintenance of viable populations of species, especially wide-ranging and highly mobile species, and ecological processes such as dispersal and pollination over the long term.

Maintaining or enhancing matrix forest blocks and connectivity corridors must be balanced against the entire array of goals, objectives and demands that are placed on a particular State Forest. Where matrix forest block maintenance and enhancement is chosen as a priority for a given property, management actions and decisions should emphasize closed canopy and

- Matrix Forest Block: 3,635 acres

More information regarding Matrix Forest blocks, connectivity corridors and associated management considerations can be found in the SPSFM page 85 at <http://www.dec.ny.gov/lands/64567.html>.

Wildlife

The wide variety of habitats (wetland, softwood, and hardwood) support a diverse array of wildlife species. The range of mammals present include small obscure species rarely noticed by people; such as rodents, as well as larger mammals such as deer and raccoon, which are common and sought out by recreationalists. All species fill a specific niche and are necessary to maintain the health of the ecosystem. According to field guides and personal observations there is a potential for over 64 species of mammals (see Appendix II). A couple of the potential mammal species (bats and cottontails) are of special concern in New York State. Efforts will continue to ensure that their habitat needs are met through proper habitat management, such as the protection of shagbark hickory trees for Indiana bats and other tree bats as well as the establishment of brush piles for rabbits. This plan will also seek to maintain all native species remain present.

Herps, which are reptiles and amphibians, are vertebrates like birds and mammals, but are cold blooded. This means they derive body heat from external sources such as rocks, go for long periods of time without eating and can remain largely inactive for long periods of time. For this reason, temperature and moisture availability regulate where and when these animals can be found. Herps are important because their presence or absence is a direct correlation to the health of the site and local ecosystem. According to The New York Amphibian and Reptile Atlas Project (1990-1999), there are potentially 27 different species of herps which may be found on Washington County State Lands (Appendix II). Herps largest challenge in the Northeast is loss of habitat and habitat degradation such as changes to vernal pools including size, pH, and acidity. This plan will help to protect these species by protecting wetlands, vernal pools, and stream corridors.

Bird species found on these State Lands include songbirds, raptors, marsh birds, and game birds. According to The Atlas of Breeding Birds in New York State 1988, there are over 175 species of birds present. The Breeding Bird Atlas is a comprehensive, statewide survey that reveals the current distribution of breeding birds in New York. The New York State Ornithological Association and the Department of Environmental Conservation sponsor the project in cooperation with the New York Cooperative Fish and Wildlife Research Unit at Cornell University, Cornell University Department of Natural Resources, Cornell Laboratory of Ornithology, and Audubon New York. This survey is largely due to a dedicated group of volunteers who do the on the ground surveys. The survey itself is grid-like across New York State. The grids from blocks that are five kilometers square in size and total 5,335 statewide. Each block is visited by volunteers who record evidence of breeding for the birds that they see using the defined Breeding Codes as seen in Appendix II. The populations of most birds will remain unchanged as long as current management practices that encourage forest retention practices and all ages of tree stands, including hardwood and softwood components. Grassland habitats and early successional shrubland habitats will be revitalized and improved to better accommodate certain bird species such as the state threatened Upland Sand Piper and Henslow's Sparrow, whose habitat is currently in poor condition on some of the management

areas. This plan will also manage wetland habitats for the Northern Harrier, Pied-billed Grebe and Least Bittern which are state threatened species.

Wetlands and Water Resources

Five of the units in this plan have streams that are considered “protected streams” Any stream with the standard of AA, AA(T), A, A(T), B, B(T), or C(T) is a protected stream. The symbol “(T)” appearing after a standard designation means that the designated waters are trout waters and that the dissolved oxygen specification for trout waters shall apply. The symbol “(TS)” appearing after a standard designation means that the designated waters are trout spawning waters and that the dissolved oxygen specification for trout spawning waters shall apply. Maps showing locations of these protected streams are located in the Appendix of this plan.

Unit	Stream Classification	# of miles
Carter’s Pond WMA	C	2.26
Carter’s Pond WMA	C (T)	.87
Batten Kill S.F.	C (TS)	.57
Batten Kill S.F.	C	.91
Eldridge Swamp S.F.	AA	.19
Eldridge Swamp S.F.	C (TS)	.75
Eldridge Swamp S.F.	C (T)	.58
Eldridge Swamp S.F.	C	.58
Mt. Tom S.F.	A (TS)	1.03
Mt. Tom S.F.	C (T)	2.16
Chestnut Woods S.F.	A (TS)	.14

Freshwater Wetlands

The State Legislature passed the Freshwater Wetlands Act in 1975 with the intent to preserve, protect and conserve freshwater wetlands and their benefits, consistent with the general welfare and beneficial economic, social and agricultural development of the state. Wetlands are transition areas between uplands and aquatic habitats. Standing water is only one clue that a wetland may be present. The Act identifies wetlands on the basis of vegetation because certain types of plants outcompete others when they are in wet soils, and so are good indicators of wet conditions over time. These characteristic plants include wetland trees and shrubs, such as willows and alders; emergent plants such as cattails and sedges; aquatic plants, such as water

lily, and bog mat vegetation, such as sphagnum moss. Wetlands are known by many names, such as marshes, swamps, bogs, and wet meadows.

To be protected under the Freshwater Wetlands Act, a wetland must be 12.4 acres (5 hectares or larger). A wetland smaller than 12.4 acres may be protected if they are of unusual local importance. Around every wetland is an 'adjacent area' of 100 feet that is also protected to provide a buffer for the wetland.

Certain activities including some types of timber harvesting are exempt from regulation; other activities that could have negative impact on wetlands are regulated.

Wetlands are divided into four classes ranging from Class 1, which represents the greatest benefits and is the most restrictive, to Class IV. The permit requirements are more stringent for a Class I wetland than for a Class IV wetland. All wetlands located on State Forests or Wildlife Management Areas should be treated as if they have a classification of at least II due to their location on a publicly owned recreation area [6 NYCRR part 664.5(b) (17)] The following is a table that depicts wetland size and classification for the units in this plan.

Unit	Wetland Classification	Acres
Carters Pond WMA	I	320.5
Batten Kill S.F.	II	5.5
Eldridge Swamp S.F.	I	225
Mt Tom S.F.	II	3.5
Mt Tom S.F.	III	17.5

The only pond located in this planning unit is Carters Pond. Carters Pond is at least a partial man-made water body as there is a dam on the outlet at the southern point of the pond. While there is a much larger wetland associated with this pond and various open water channels extend out of the main portion of the pond Carters Pond has approximately 22 acres of open water. Carters pond is a warm water fishery and also used by waterfowl.

The Batten Kill River is the most substantial water body associated with the state forest units. The Batten Kill River is used heavily by fisherman along its length. Approximately .60 miles of Batten Kill River are located along the boundary of the Batten Kill State Forest and approximately .52 miles of Batten Kill River are located along the boundary of the Eldridge Swamp State Forest. The Batten Kill River is also used heavily for recreation by canoes, kayaks and tubes in the vicinity of the state forests.

Eldridge Swamp State Forest contains a unique and unusual forested area located in a portion of Eldridge Swamp, which lies west of Route 313 and north of Hatchery Rd. Eldridge Swamp is unique in that it has a relatively large isolated stand of white spruce located along the irregular southern boundary of the typical range of white spruce. Some factors that likely contributed to the character of Eldridge Swamp and the presence of the white spruce date back to the late Pleistocene era when glacial ice filled the Shushan valley area. A large mile square mass of ice was buried under a gravel plain from the glacially blocked Batten Kill River as this ice block

melted, the area known as Eldridge Swamp was created. This depression area, bordered by calcareous gravel banks with stone originally from Vermont has numerous springs pouring into it and is seasonally flooded by the Batten Kill River. These conditions allow the area to stay cool and provide the moisture and mineral requirements needed by white spruce and some of the other unique species found there. The swamp is characterized by hummock topography of living and dead material with open water and muck in the pockets between hummocks. This muck, sounded in years past, has exhibited depths greater than 8 feet and it is thought depths may reach up to 20 feet in some areas. (Cook, 1959)

Biodiversity

The Natural Heritage Program maintains New York's most comprehensive database on the status and location of rare species and natural communities. The Natural Heritage Program completed a report in August of 2008 that included the state forests and wildlife management area covered in this plan. The following tables and descriptions of natural communities contain information from this report. The Environmental Conservation Law of New York, Section 11-0535 and 6 NYCRR (New York Code of Rules and Regulations) part 182 authorizes the Department to list and protect endangered, threatened, and special concern wildlife species. The following tables depict species and significant habitats that have been documented on DEC lands since 1997 as well as historic information for the region of southern Washington county.

1997 - 2010			
DEC LAND	COMMON NAME	NY STATE LISTING	NY STATE RANK
Carter's Pond WMA	Pied-billed Grebe	Threatened	S3
Carter's Pond WMA	Least Bittern	Threatened	S3
Carter's Pond WMA	Deep Emergent Marsh		
Mt. Tom SF	Back's Sedge	Threatened	S2
Mt. Tom SF	Hairy apple moss	Not listed	S1
Mt. Tom SF	False hair moss	Not listed	S1
Batten Kill SF	Chestnut Oak Forest		S4
Goose Egg SF	Chestnut Oak Forest		S4
Eldridge Swamp SF	Spruce-Fir Swamp		S3
Eldridge Swamp SF	Deep Emergent Marsh		S4

Documented before 1932 in vicinity of DEC Lands of Southern Washington County		
COMMON NAME	NY STATE LISTING	NY STATE RANK
Green Rock-cress	Threatened	S2
Ogden's Pondweed	Endangered	S1
Common Mare's-tail	Endangered	S1
Southern Bluets	Endangered	SH
Purple Bluets	Endangered	SH
Orange Fringed Orchid	Endangered	S1

State Ranks:

S1 - Critically imperiled because of rarity (5 or fewer occurrences, or few remaining acres or miles of stream) or factors making it especially vulnerable to extinction range wide (global) or in New York (state)

S2 - Imperiled because of rarity (6-20 occurrences, or few remaining acres or miles of stream) or factors demonstrably making it very vulnerable to extinction (global) or extirpation from New York (state)

S3 - Either rare or local, typically with 21 to 100 occurrences, limited acreage, or miles of stream range wide (global) or in New York (state)

S4 - Apparently secure range wide (global) or in New York (state)

S5 - Demonstrably secure, though it may be quite rare in parts of its range

SH - Historically known from New York, but not reported in the last 20 years

Significant habitats found on state lands of lower Washington County:

The descriptions of the rare plants, animals and significant natural communities found below were taken from the New York Natural Heritage Website: <http://www.acris.nynhp.org/>

Pied-billed Grebe - Pied-billed grebes are small, stocky, poorly buoyant waterbirds, about 31-38 cm in length, with small, narrow wings, and feet placed far back, with a blunt-ended posterior. During the non-breeding period, the bill is unmarked, the throat is white, and the white rear becomes more conspicuous. As adults, the sexes are alike, whereas juveniles are distinguished by the lack of a white orbital ring, an unmarked bill, darker brown sides of the head and neck, and a whiter underbelly (Palmer 1962). Downy chicks have a zebra-like pattern of black and white stripes, interspersed with reddish-brown spots (Palmer 1962).

VOCALIZATIONS: Territorial males have a distinctive prolonged call, a loud "cow-cow-cow-cow-cow-cowp...cowp...cowp...". Several other calls are also produced during the breeding season, but during the non-breeding season they are mostly silent. **NEST:** Grebes build sodden, floating nests of rotting and green plant material and mud averaging 38 cm in diameter (Glover 1953), often anchored to growing emergent plants. **EGGS:** Elliptical to subelliptical, approximately 44 x

30 mm, smooth and nonglossy (Harrison 1978). Although white or tinted bluish when laid, the eggs gather a heavy, brown stain from the wet, organic matter in the nest.

The pied-billed grebe was recorded as a probable or confirmed breeder in 150 USGS topographical quads during the second New York State Breeding Bird Atlas (2000-2005), and as a possible breeder in an additional 115 quads. Overall, the species is considered a rare to uncommon, local breeding species with many of the records clustered in areas of large wetland complexes. Although it was recorded in significantly more quads during the Atlas 2000 project in comparison with the first New York State Breeding Bird Atlas in the mid-1980's, Breeding Bird Survey records indicate a - 2.0% annual trend between 1980 and 2002 (New York State Department of Environmental Conservation 2006) and the species is state listed as Threatened. Loss of wetlands and other factors continue to pose threats to the species although a number of excellent occurrences are on protected state and federal wetland complexes.

Least Bittern - Small size, yellow color, and a dark crown are characteristics that distinguish Least Bitterns from all other bitterns and herons (Hancock and Kushlan 1984 cited in NatureServe 2003). Diagnostic field characteristics include a vivid, greenish-black crown, back, and tail; brownish and white neck, sides, and underparts; and chestnut-colored wings with conspicuous, contrasting, pale-colored wing patches. No other small heron has large buffy patches on the upper side of the otherwise dark wings. Sexes are similar in size, but sexes are dimorphic. Females have a purple-chestnut crown and back and the neck is darkly streaked. Males have a black crown and back. Juveniles are similar to females, but the crown is more brown and paler and the breast and throat are browner and more heavily streaked. Nests are usually built over shallow water 0.3-3.3 ft (0.1-1.0 m) deep (Palmer 1962, Kushlan 1973, Aniskowicz 1981 cited in NatureServe 2003) and tend to be less than 33 ft (10 m) from open water (Weller 1961 cited in NatureServe 2003). A nesting platform with a canopy is made by pulling down and crimping surrounding emergent vegetation, such as cattail or bulrush (Weller 1961 cited in NatureServe 2003). Eggs are elliptical, pale blue or pale green, smooth and nonglossy, averaging 1.2 by 1 in (31 by 24 mm) (Bent 1926, Harrison 1978 cited in NatureServe 2003). The male's advertisement call, most frequently heard in spring, is a dove-like cooing characterized as "uh-uh-uh-uh-uh-oo-oo-oooo-oo-ooah" (Palmer 1962 cited in NatureServe 2003). Females may respond with "ticking" calls (Hancock and Kushlan 1984 cited in NatureServe 2003). When alarmed, three calls may be uttered: a loud, shrieking "quoh," a hissing "hah," or a cackling "tut-tut-tut" (Palmer 1962, Hancock and Kushlan 1984 cited in NatureServe 2003).

The first Breeding Bird Atlas (1980-1985) reported 142 blocks and the second Breeding Bird Atlas (2000-2005) reported 129 blocks (Andrle and Carroll 1988 and McGowan and Corwin 2008). It appears that populations have declined by about 9% when comparing the two atlases. One of the most significant threats to this species is loss of appropriate habitat. New York State has lost over half of its wetlands since colonization (Tiner 1984 cited in NatureServe 2003).

Back's Sedge - There are currently 16 known populations of *Carex backii* and approximately ten historical populations. This plant tends to prefer wooded sites with a shallow limestone bedrock. Since this is a somewhat specific requirement, habitat options are limited. Invasive species may pose a threat, but for now this threat has had minimal impacts. There are real concerns that swallowwort (*Cynanchum* spp.) will reduce or eliminate a few populations.

Deep Emergent Marsh - This significant community can be most easily identified by a community of non-woody plants growing out of water, where the water remains year-round. Typical examples of deep emergent marshes are dominated by cattail. They tend not to be very floristically diverse and are continuously flooded throughout the year.

Threats to Deep emergent marshes consist mostly of development and its associated run-off. Threats also include recreational overuse (excessive boating), alteration to the natural hydrological regime (dams, dredging, blocked culverts) and invasive exotic species such as purple loosestrife, water chestnut, eurasian watermilfoil, reedgrass and frog-bit.

Management Considerations include where practical, establish and maintain a natural wetland buffer to reduce storm-water, pollution, and nutrient run-off, while simultaneously capturing sediments before they reach the wetland. Buffer width should take into account the erodibility of the surrounding soils, slope steepness, and current land use. Wetlands protected under Article 24 are known as New York State “regulated” wetlands. The regulated area includes the wetlands themselves, as well as a protective buffer or “adjacent area” extending 100 feet landward of the wetland boundary. If possible, minimize the number and size of impervious surfaces in the surrounding landscape. Avoid habitat alteration within the wetland and surrounding landscape. For example, roads and trails should be routed around wetlands, and ideally not pass through the buffer area. If the wetland must be crossed, then bridges and boardwalks are preferred over filling. Restore past impacts, such as removing obsolete impoundments and ditches in order to restore the natural hydrology. Prevent the spread of invasive exotic species into the wetland through appropriate direct management, and by minimizing potential dispersal corridors, such as roads.

Spruce-Fir Swamp - This community is most commonly characterized as a conifer swamp with dense canopy cover that is dominated by red spruce. Common codominant trees include balsam fir and red maple. The swamp has little or no peat development and typically occurs in a drainage basin at the edge of a lake or pond, or along gentle slopes of islands where there is some nutrient input from groundwater discharge or subsurface flow.

Threats to this community include development (agriculture, residential, roads, mining operations), habitat alteration (logging, ditching, filling, pollution / nutrient run-off, plantations) recreational overuse and alteration to the natural hydrological regime (impoundments, blocked culverts / beavers). Spruce / fir swamps may be threatened by invasive species such as reedgrass. Spruce budworm may also be considered a threat if there are extreme outbreaks.

Management Considerations include where practical, establish and maintain a natural wetland buffer to reduce storm-water, pollution, and nutrient run-off, while simultaneously capturing sediments before they reach the wetland. Buffer width should take into account the erodibility of the surrounding soils, slope steepness, and current land use. Wetlands protected under Article 24 are known as New York State “regulated” wetlands. The regulated area includes the wetlands themselves, as well as a protective buffer or “adjacent area” extending 100 feet landward of the wetland boundary. If possible, minimize the number and size of impervious surfaces in the surrounding landscape. Avoid habitat alteration within the wetland and surrounding landscape. For example, roads and trails should be routed around wetlands, and ideally not pass through the buffer area. If the wetland must be crossed, then bridges and boardwalks are preferred over filling. Restore past impacts, such as removing obsolete impoundments and ditches in order to restore the natural hydrology. Prevent the spread of invasive exotic species into the wetland through appropriate direct management, and by minimizing potential dispersal corridors, such as roads. Develop a plan to control or eliminate spruce budworm at sites where it is a problem.

Chestnut Oak Forest - This community is a hardwood forest that occurs on well-drained and often rocky and glaciated sites. The dominant trees are typically chestnut oak and red oak with mountain laurel, huckleberry, and low-bush blueberries in the understory.

Threats to this community include development, fragmentation, invasive species and sometimes over-browsing by deer, fire suppression and air pollution. Over time, the dry, rocky slopes most appropriate for this community can become invaded by plants that slowly enrich the site if fire or other disturbances are suppressed.

Management considerations for this community should avoid fragmentation of the area, especially where there are large occurrences of this community and should concentrate on regeneration of the species present in these locations. Deer browse should be observed and controlled if possible to encourage regeneration. It should also be noted that suppression of forest fires in this community will tend to facilitate the loss of the current ecological requirements of the present vegetative cover of the area. Forest fires have most likely played a historic role in fostering this type of community. Fires tend to remove excess organic material from the site, maintain exposed bedrock areas and allow more light to reach the ground. These conditions help to provide the site requirements needed to sustain this community.

Neil Pederson's report and research from 2003 outlines the uniqueness of the Hudson Valley, its climate and the associated forest ecosystems.

"Unique geographical, climatic and ecological qualities make the Hudson Valley a natural laboratory for studying the influence of climate on forested ecosystems.

An important biome transition zone is found at the northern end of the Hudson Valley where the forest changes from oak-hickory to northern hardwoods going south to north. Boreal ecosystems are also found within this zone. It has around 10 boreal and more than 20 southern temperate tree species living at or near a range limit making it rich in biodiversity. For example, nearly 60% of important timber or horticultural native tree species (according to Little, 1971) found east of the Mississippi River can be found within the Hudson Valley. For important New York State trees, this figure rises to 89.9% for the Hudson Valley. The ecotone is not a new phenomenon. It looks to have been present over the last 10,000 years.

This region also lies at the convergence of the winter Arctic and Pacific Frontal Zones. The convergence coincides with an important boundary between the permanently humid, warm summer maritime climate of the eastern seaboard (to the south) and cooler subcontinental (to the north) climatic regions. Precipitation increases moving south along the Hudson Valley. This trend may permit survival of boreal tree species alongside southern species.

The biodiversity of the Hudson Valley should make it a future source for species migration to regions such as the Adirondack, Catskill, Berkshire, Green and White Mountains. The Hudson Valley was hypothesized as a corridor for tree migration to the Adirondack Mountains. Therefore, if paleoecological evidence serves as a guide to the future, any changes in forest composition due to future climatic changes will have important impacts on the overall biodiversity of the region.

Several tree species have northern or southern range margins in Saratoga, Warren and Washington counties including: black tupelo [black gum]; pignut and mockernut hickory; black, swamp white, scarlet and white oak; tulip-poplar [tuliptree, yellow-poplar]; sassafras; red mulberry and white spruce.

A few notable forests that contain some of these range margin species are:

- **Cambridge, NY** is home to one of the northernmost populations of American sycamore. Only an outlier population in the Champlain Valley is found farther north.

- **Eldridge Swamp** contains the southernmost known population of white spruce in NY that may be the third or fourth southernmost population globally. The swamp forest is a rare boreal ecosystem in the Hudson Valley lowlands.
- **Goose Egg State Forest** contains an important population of chestnut oak. Chestnut oak is also found further north in the Lake George Basin and Champlain Valley. The Goose Egg population is found at relatively high elevation.

Despite more than 300 years of intensive land-use in the Hudson Valley there are pockets of old- and old second growth forests. The forests in Saratoga, Warren and Washington County are no exception.

More than 60 oaks were sampled above 1500 feet along the southwestern end of Goose Egg Ridge in **Goose Egg State Forest**. Red, white and chestnut oak were sampled in late August 2002. Minimum ages of the 20 **red oaks** sampled ranged from 163 to 203 years [this excludes the one hollow tree]. Minimum ages of the 20 **white oaks** sampled ranged from 130 to 300 years. Four individuals were more than 250 years of age with two of these being more than 290. Minimum ages of the 23 **chestnut oaks** sampled ranged from 83 to 337 years. Four of these trees were rotten. However, seven individuals were 179-197 years old with another two more than 295 years.

Goose Egg State Forest has been managed at lower elevations and on flatter sections. There is some evidence of logging in a restricted section on the southeastern side of Goose Egg Ridge. Oak age structure and discussions with Ron Cadieux indicate that much of the forest on Goose Egg Ridge above 1500 feet is old-growth.

A sampling of **white spruce in Eldridge Swamp** found individuals with minimum ages ranging from 78 to 186 years old. Eldridge Swamp seems to have been cut at least twice during the 20th century. Regardless, 11 trees were more than 150 years old.

In the context of future climate change, analysis of the climatic sensitivity of these range margin tree populations in Saratoga, Warren and Washington County could give an indication of future forest productivity, composition/biodiversity and ecotone stability of forested ecosystems in the Hudson Valley, northern New York and New England.” (Pederson, 2003)

Transportation Corridors

The State Forest road system provides for both public and administrative access to the Unit. The roads are constructed to standards that will provide adequate access to public lands and keep maintenance costs at a minimum. There are three types of roads, public forest access roads, haul roads and access trails. Each provides different levels of access, depending on the standards to which they are constructed.

Public forest access roads are permanent, unpaved roads. They may be designed for all weather use depending on their location, surfacing, and drainage. These roads provide primary access for administration and public use within the Unit. The design standards for these roads are as provided in DEC's Unpaved Forest Road Handbook which is available upon request from the DEC Region 5 Warrensburg Office 518-623-1265. There is a maximum speed limit of 25 miles per hour for any vehicles using DEC maintained Truck Trails on Reforestation areas.

Washington County public forest access roads have seen partial rehabilitation and not regular maintenance in recent years due to monetary and manpower constraints.

Mt. Tom State Forest has Two public access roads. The Notch Lane Truck Trail is located on the eastern half of the property and runs north and south. The Notch Lane runs approximately 1.32 miles through the state forest and is a connector between Lincoln Hill Rd. and Chestnut Hill Rd. This Truck Trail sees the greatest motor vehicle use. The Notch Lane Truck Trail has a gate at both ends which allows the road to be gated during the springtime and sensitive periods when roads are wet and soft, to prevent damage to the road. The gates are opened during adequate snow cover to allow snowmobile use. This road requires regular maintenance and should be attended to yearly. Ditches and culverts need to be cleaned and maintained on a regular basis, this road also requires periodic grading, road raking and gravel re-surfacing. Pot holes are a common problem associated with this road.

Shaker Hollow Truck Trail is located on the western portion of Mt. Tom and enters the forest from the south. The maintained truck trail goes approximately one half mile into the property to an open landing area. The truck trail continues out of this open area to the north until it leaves the state forest and enters private property. This northern portion of the truck trail receives little use as it is maintained less and is harder to navigate - four wheel drive is required. The public may use this truck trail, however, they may not continue onto private property without the consent of the private land owner. The southern portion of this road should be maintained yearly. Ditches and culverts cleaned, road raked and graded as needed. The northern portion of this road should be maintained at least every two years. Drainage structures checked and repaired, grading as needed.

An access road to Chestnut Woods State Forest is located on the north east side of Chestnut Hill Rd, .36 miles east of the intersection of Chestnut Hill Rd. with McKie Hollow Rd. This access to northern Chestnut Woods State Forest is approximately .25 miles in length and requires 4-Wheel Drive and high clearance. This road is also in need of regular maintenance.

Haul roads are permanent, unpaved roads which are not designed for all-weather travel, but may have hardened or improved surfaces with artificial drainage. They are constructed according to best management practices primarily for the removal of forest products, providing limited access within the Unit by log trucks and other heavy equipment. These roads may or may not be open for public motor vehicle use, depending on management priorities and objectives. They may serve as recreational access corridors, but are not maintained according to specific standards or schedules. The design standards for these roads are as provided in the Unpaved Forest Road Handbook.

Access trails are temporary, unpaved roads which do not provide all-weather access within the Unit. They are not designed for long term and repeated use by heavy equipment. These corridors were originally constructed for the seasonal removal of forest products by skidding to landings or other staging areas. Constructed according to best management practices, these trails may be used to support other management objectives such as recreational access corridors. Maintenance is limited to activities which minimally support seasonal access objectives.

Recreational Trails are unpaved recreational corridors which do not provide all weather access within a unit, and are designed to achieve specific recreational access objectives. Constructed according to best management practices, and following accepted regional standards for design, these trails may be used to support multiple types of seasonal recreation access. Maintenance is limited to activities which minimally support the access objectives and design.

Public Roads are permanent, paved or unpaved roads primarily designed for motor vehicle travel which are maintained by federal, state or local government. These roads may or may not provide year round access.

Recreation

New York State Forests and Wildlife Management Areas offer many recreational opportunities. Hunting, fishing, trapping, hiking, running, skiing, snowshoeing, mountain biking, snowmobiling, horse riding, canoe / kayak use, camping, nature observation, berry picking, geocaching, picnicking and photography are some of the many possible recreational opportunities found on state lands.

Different regulations apply to state forests and wildlife management areas. For example, overnight camping is permitted on state forests but not wildlife management areas. The public may camp anywhere on state forests as long as it is not within 150 ft. of any road, trail, spring, stream, pond, or other water source or if an area is specifically signed against camping. For campers in groups of less than 10 people and for up to 3 days, no permit is required but is suggested. Longer stays and / or larger groups are required to have a camping permit which may be issued by the local NYS DEC Forest Ranger. Overnight camping or fires are not allowed on wildlife management areas. Campsites on state forests must be kept neat, clean, and in a sanitary condition.

ATV and off-road vehicle use is prohibited on all state land units included in this plan.

Hunting and trapping are very useful wildlife management population control tools. If populations of deer get too large the deer can damage vegetation by browsing on it. Regeneration of tree seedlings in some forest lands can be extremely difficult if deer populations are high. Hunting and trapping are allowed in season on all of the units included in this plan in accordance with the Environmental Conservation Laws and Regulations. The units that make up this plan include diverse habitats of mature and young forests, grassy fields, brushy fields, wetlands and rocky outcrops where large game and small game species may be found.

Fishing opportunities can be found in multiple areas of this unit. The Batten Kill River, a very well known trout water, can be accessed through both the Eldridge Swamp State Forest and the Batten Kill State forest. A parking lot located along the Batten Kill River on Eagleville Rd. in the town of Jackson is one convenient access location. Carter's Pond, a warm water fishery, is popular with anglers in both the summer and winter. There are also a few small classified trout water streams throughout these properties which may prove fun and interesting to explore.

Hiking is allowed on all of the areas in this unit. Developed hiking trails can be found in Carter's Pond Wildlife Management Area and the Batten Kill State Forest. The Carter's Pond Nature Trail can be accessed through the large parking lot on the southwest boundary of the property. The trail, approximately 1 mile in length, is a loop trail meandering through a hardwood forest and along Whittaker Brook. The trail has raised boardwalks over a few wet areas. The Folded Rock Foot Trail is located on the Batten Kill State Forest. The parking area for this trail is located on the east side of Route 313 just a few hundred feet north of the intersection of Route 313 and Eagleville Rd. The Folded Rock Trail is approximately 2.4 miles in length and has a trail register box near the beginning of the trail. This trail may prove rather strenuous to some

as it gains almost 1,000 vertical feet over its length and is quite steep in sections. The Folded Rock Trail winds through a unique chestnut oak stand near the height of land in which some of the trees have been aged at over 340 years. The trail ends at a window like view to the valley below. Trails marked as "Foot Trails" may not be used by horses, bicycles or snowmobiles.

A wheelchair accessible path to an elevated viewing platform exists at the trailhead to the hiking trail at Carter's Pond. A trail of approximately 50' in length and constructed of compacted gravel leads from the parking lot up a very slight grade to a point where it meets a wooden boardwalk with railings. The level board walk extends out toward the pond as the surrounding ground slopes fairly steeply down to the water's edge. The short boardwalk ends at a small deck with railings that allow room for a wheelchair to turn around. The viewing platform at the end of the boardwalk provides a pleasant bird's eye view of the pond. A wheelchair accessible half-mile loop nature trail also exists at this location. The trail has a hardened stone dust surface and includes an elevated boardwalk, several bridges and ample passing spaces. The trail is connected to designated accessible parking. There is no privy at this location. The Universal Trail Assessment Process has been conducted on the Carter's Pond nature trail.

Snowmobiling opportunities are few on these state forests. Snowmobiling is not permitted on Carter's Pond Wildlife Management Area. Truck trails and access trails through the state forests are relatively short in length and don't provide the conditions usually sought after by snowmobilers. A local snowmobile club has an Adopt A Natural Resource Agreement with the Department to maintain a trail through Mt. Tom State Forest for snowmobile use. The trail crosses two separate portions of Mt. Tom State Forest and enters adjacent private land at three different points. Permission to enter these private lands was secured by the snowmobile club and does not extend to other trail users. The eastern most point at which the snowmobile trail leaves state land is along the Notch Truck Trail to the south. Any future requests for snowmobile trails on State Forests in Washington County will be handled on a case by case basis. If the existing forest management trail network on these units could also serve as a valid connector trail which would allow local snowmobile groups access to larger trail systems the Department may work with these groups through volunteer agreements. Development of new trails where trails do not already exist will be handled in future Unit Management Plan updates.

Mountain biking is allowed on the state forests except where signed against such use. A suitable trail location has been identified on the Mt. Tom State Forest that if constructed, would be appropriate for mountain bike use. The trail would originate at the seed orchard access, utilize a portion of the Shaker Hollow Truck Trail and would provide a loop trail through the forest ending back at the seed orchard access. This trail, will not serve just a single use, but will be a multiple use recreational trail. The Department would look favorably upon entering into a volunteer agreement with an organization or group to assist in the construction and maintenance of this trail.

Horses are permitted on state forests unless an area is signed against horse use. As with snowmobile use, there are not many trails on these state forests of considerable length to encourage most equestrians. Extensive horse trail systems do exist on larger state forests in other areas of New York. The current state forest portions of the snowmobile trail on Mt. Tom State Forest may be used by horses when there is not snow covering the trail. If the proposed multiple use trail is constructed on Mt. Tom State Forest it too may be used by horses.

Geocaching, an adventurous hide and seek type game using GPS and the internet is gaining in popularity around the world. Geocaching involves hiding a cache or some form of treasure, and advertising the coordinates to the location and perhaps some hints. These clues or coordinates allow others to then seek the cache using a GPS receiver. Upon finding the cache, the seeker

normally removes an item from the cache and replaces it with another item of greater or equal value. Geocaching varies in difficulty based on the topographic location of the cache as well as how hidden the actual cache is. Some geocaching may not involve a cache, but will describe a location where seekers need to observe or measure something at the location in order to answer questions proving that they had indeed found the location. Geocaching is allowed on State land as long as the geocache is labeled with the owner's name and address and is installed in a manner that does not disturb the natural conditions of the site or injure the flora or fauna.

Boating opportunities exist at Carter's Pond Wildlife Management Area and the Batten Kill River. Carter's pond has a small car-top boat launch site at a parking lot on the western edge of the property. Canoes, kayaks and rowboats are allowed in Carter's Pond, however, use of motorized vessels are prohibited.

The Batten Kill River is very popular with local recreationists as a place to float and swim during the summer months. Canoes, kayaks and tubes can often be seen floating down river from the banks along the Batten Kill State Forest. Fishermen also float this river in pursuit of trout. The Batten Kill River may be accessed through the Batten Kill State Forest as well as Eldridge Swamp State Forest. Direct access to the Batten Kill from Eldridge Swamp State Forest may be difficult as there are significant overgrown fields and wet areas between the river and the parking facilities. The Batten Kill State Forest is experiencing some negative effects of recreational use during the peak summer months. Eagleville Rd. becomes congested with parked vehicles, creating a dangerous situation and some vehicles have driven down the road bank and across state land to access private property downstream of the Eagleville Covered Bridge. To better manage this seasonal increase in use and focus the impact of this recreational use - posting the roadsides of Eagleville Rd. against parking is recommended and possible construction of a new parking lot should roadside posting along Eagleville Rd. prove ineffective to remedy the issues created by roadside parking. The new parking area if needed would be constructed south of the Eagleville Rd. to the east of the fishing access parking lot. This Parking lot would be designed to handle up to 20 vehicles as an alternative to Eagleville roadside parking. This lot, if constructed and the area around it will be limited to day use. Access to the river will be improved at its current location along Eagleville Rd. River access will be hardened and improved to better handle periods of high use during summer months and provide access for people with disabilities to the water edge. Barricades will also be installed as needed to prevent vehicles from continued illegal crossing over state land.

Department Regulations which may affect recreation on state land

Fires are not allowed on Carter's Pond Wildlife Management Area. Fire may be used on Wildlife Management Areas and State Forests as a management tool by the department through an appropriate fire plan. No fires on State forests 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. No person shall deposit lighted matches, cigars, cigarettes or other burning tobacco where they will cause fire. No wood, except from dead and down trees shall be used for fuel. No person shall set, light, use or maintain a fire or campfire of any kind on state lands which are posted or designated by the department to prohibit campfires. Under no circumstances are campfires allowed on any forest access road, truck trail, road, trail or parking area on State lands.

Firearms - No person shall possess breakable targets, including but not limited to clay pigeons, on State lands and no person shall target shoot at breakable targets, including but not limited to clay pigeons and glass containers, on State lands. Unless legally engaged in the act of hunting,

no person shall discharge firearms on State lands posted or designated as closed to target shooting. No person shall possess paint balls or paint ball guns on State lands, and no person shall sponsor, conduct or participate in any activities associated with the discharging of paint balls on State lands.

Inventory of Facilities

Table showing an inventory of State land facilities can be found in Appendix IX

Geological

Washington County comprises parts of four physiographic areas of the north-eastern United States: the Adirondack province, the Hudson Valley section of the Appalachian Valley and Ridge province, the Champlain section of the St. Lawrence Valley, and the Taconic section of the New England province. The Taconic area in the east covers more than 55 percent of the County. The upland portion of the Taconic area, which includes the focus of this plan, is a westward sloping plateau whose altitude decreases from about 600 feet to 400 feet above sea level. The area is underlain by sedimentary rocks, which have been strongly metamorphosed and thus strengthened to resist erosion, and presents a highly irregular surface. The topography is marked locally by numerous elongated steep hills and oval hillocks, which have a general north-south trend, though in much of the area there is no alignment of the ridges and valleys. The surface was considerably modified by the passage of the ice sheet, which abraded the rock surfaces, deposited a thin mantle of glacial till over much of the area, and here and there formed rounded or conical glacial hills known as kames and drumlins.

The geologic structure of the rock in Washington County is varied and complex. The complexity becomes progressively greater in an easterly direction as the major forces producing mountain building and rock movement were from that direction. The rocks of the Taconic sequence exhibit the most intricate structure. Because of their more easterly position and physical character, they have taken up most of the compressive force from the east. They are highly folded and faulted. The relief, affected by the closely folded bedrock, is irregular and hilly throughout the region. The bedrock consists of a series of metamorphosed grits, slates, shales, and interbedded limestones and lesser amounts of phyllite, quartzite, graywacke, and argillite. Many of the surface boulders in this area are characterized by intricate raised patterns of bright white quartz veins. (Cushman. 53)

Soils:

There are at least 26 different soil types that can be found on the state land areas of Washington County. A relatively few soil types account for a majority of the land areas while a large number of the soil types are small in size. Soil maps can be found in the appendix which show the various soil types associated with the state land units. County soil descriptions give detailed information on these soil types and should be referred to when planning activities that will effect or are dependent on specific soil types. The four major soil types described below account for approximately 80 percent of soil types found on the state lands of Washington County.

1. NBF Nassau-Rock outcrop association, steep and very steep

This association is about 50 percent Nassau soil, 30 percent Rock outcrop, and 20 percent soils of minor extent. It is on uplands where the relief is affected by folded shale and slate bedrock. Outcrops of this bedrock are common. Slopes are very complex and range from about 25 to 70 percent. Areas are irregularly shaped and range from about 40 to more than 100 acres in size.

The Nassau soil in this association has a profile similar to the one described as representative of the Nassau series, but very rocky phases dominate the landscape and depth to bedrock is much more variable from place to place. Intermingled throughout the areas are escarpments of exposed bedrock that make up the Rock outcrop part of this association.

Of minor extent are the deep, well drained to moderately well drained Bernardston soils and a moderately deep, well drained soil that is similar to the representative Nassau soil, but ranges from about 20 to 40 inches deep over bedrock. These soils are intermingled with the Nassau soil and Rock outcrop where deposits of glacial till are more than 20 inches deep over bedrock.

Most of this association is in woody vegetation or is idle. Slopes, droughtiness, and numerous rock outcrops are limiting factors for farm and most nonfarm uses. Potential productivity of NBF is represented in an estimated site index range of 45 - 50 for sugar maple. Moderate erosion hazard and severe equipment restrictions are associated with this soil type. Seedling mortality is severe. Hardwood and softwood plant competition are slight and windthrow hazard is moderate. Trees to be favored in this soil type include beech, birch and maple. Trees suitable for planting in the NBF soil type are scotch pine and planting is limited to specific areas.

2. NBC Nassau-Rock outcrop association, undulating through hilly

This association is about 40 percent Nassau soil, 20 percent Rock outcrop, and 40 percent soils of minor extent. It is on uplands where the relief is affected by folded shale and slate bedrock. Outcrops of this bedrock are common. Slopes are complex and range from about 40 to more than 100 acres in size.

The Nassau soil in this association has a profile similar to the one described as representative of the Nassau series, but very rocky phases dominate the landscape and depth to bedrock is more variable within short distances. Intermingled throughout the areas are exposures of mainly shale or slate bedrock that make up the Rock outcrop part of the association. In places escarpments of this bedrock are short and vertical.

Of minor extent are the deep, well drained to moderately well drained Bernardston soils; the somewhat poorly drained Scriba soils; and the very poorly drained Sun soils. The Bernardston soils are interspersed in convex areas where runoff is fairly rapid and little water accumulates. The Scriba and Sun soils are in low areas and depressions where water accumulates. In places the depressional pockets contain muck soils. Also in the association is a moderately deep, well-drained soil that is similar to the representative Nassau soil, but is about 20 to 40 inches deep over bedrock.

Most of this association is in woody vegetation or is idle. Some of it is used for pasture. Most uses are limited by shallowness, droughtiness, and the numerous rock outcrops. Potential productivity of NBC is represented in an estimated site index range of 45 - 50 for sugar maple. Slight erosion hazard and moderate equipment restrictions are associated with this soil type. Seedling mortality is severe. Hardwood and softwood plant competition are slight and windthrow hazard is moderate. Trees to be favored in this soil type include beech, birch and

maple. Trees suitable for planting in the NBC soil type are scotch pine and planting is limited to specific areas.

3. Bernardston gravelly silt loam, 15 to 25 percent slopes (BnD)

This soil has a profile similar to the one described as representative of the series, but the upper part of the subsoil is typically thinner. The soil is on hillsides. In places slopes are short and tip in many directions. Most areas are elongated and are less than 20 acres in size. Runoff is medium to rapid.

Included with this soil in mapping are areas where the surface layer is gravelly loam and areas of the shallow Nassau soils. Also included, on the southern end of drumlins, are spots of water-sorted sand and gravel that are more difficult to work than the uniformly sloping soils.

This Bernardston soil is suited to hay, pasture and woodland. It is subject to erosion and is poorly suited to row crops. It is moderately steep, and the use of farm equipment is dangerous. Most of the acreage is grassland. Potential productivity of BnD is represented in an estimated site index range of 60 - 65 for sugar maple. Slight erosion hazard and moderate equipment restrictions are associated with this soil type. Seedling mortality is slight. Hardwood plant competition is slight and softwood plant competition is moderate. Windthrow hazard is slight. Trees to be favored in this soil type include beech, birch, maple, black locust, and red oak. Trees suitable for planting in the BnD soil type are red pine, white pine, Norway spruce, white spruce, European larch, Japanese larch, and black locust.

4. Carlisle muck (Ca)

This soil has the profile described as representative of the series. It consists of well-decomposed organic deposits more than 51 inches deep that have accumulated in wet depressions. These level boggy areas receive runoff from surrounding soils. Runoff is slow, and large quantities of water are stored during snowmelt in spring. Areas vary. They are generally less than 40 acres in size, but range from a few acres to several hundred acres.

Included with this soil in mapping are many areas that are underlain by marl at a depth of 58 to 110 inches and others that are underlain by silt loam and silt at a depth between 54 and 80 inches. Also included are spots of soils that are more acid and a few areas of Palms soils.

This very poorly drained muck must be drained if it is to be used for crops or pasture. After drainage it is subject to settling. Soil blowing occurs in cultivated areas during dry periods. Many areas are in frost pockets. Most of the acreage is forest of red maple and other water-tolerant trees. If adequately drained, the soil has a high potential for specialty vegetables or sod crops. Potential productivity of Ca is represented in an estimated site index range of 50 - 60 for red maple. Slight erosion hazard and severe equipment restrictions are associated with this soil type. Seedling mortality is severe. Hardwood and softwood plant competition are severe and windthrow hazard is moderate. Trees to be favored in this soil type include beech, birch and maple. Competition, drainage, and frost hazard restrict planting in this soil type. (Soil Survey of Washington County, NY)

Administrative Facilities

A gravel pit of extraordinary quality exists on the southern portion of Chestnut Woods State Forest. This gravel pit was removed from active mine status on October 23, 2008 as it was not being used at the capacity necessary to be considered an active mine and funds were being used to maintain the active mine status. The gravel pit was first placed in active mine status on December 5, 1980. Gravel from this source has been successfully used to maintain local state forest truck trails and parking lots. The current status of this gravel pit will allow the Department to remove up to 1,000 tons of gravel, or approximately 50 tandem dump truck loads, for maintenance purposes over any 12 month period. If material is needed at a greater amount it will be necessary to reopen the active mine status or purchase additional gravel from a nearby gravel mine.

Seed orchards were established in the different climatic regions of New York State. The objective of creating and maintaining seed orchards is to produce our own seed from known individual trees and to produce a sufficient quantity of seed in order to meet planting needs of the state nursery. The trees which compose the orchards were cloned from trees which demonstrated "desirable" qualities.

The site at Mt. Tom state forest was chosen primarily due to convenience. It was determined that the soil of the site was adequate for establishing conifer seed orchards; and the site was close to a work force. In the 60's through the late 70's, State Foresters used to play a bigger role in regards to monitoring the health and success of the orchards. Operations crews would routinely mow and maintain the site and trees. Cone collection crews from the Saratoga Nursery did not need to travel far in order to inspect and collect the crop at the site.

The Scotch pine orchard was established in 1966. The orchard is 3.7 acres in size. The trees are spaced 18' X 18'. The scotch pine composing this orchard are of Boonville variety. The Norway spruce orchard at this site was established in 1971. These trees are also spaced 18' X 18'. This orchard is 2.5 acres in size.

These orchards are still utilized today. Due to staff cut backs, the orchards do not receive the attention they have in the past. Over the past ten years these areas have supplied the nursery with over 60 pounds of seed. These areas are inspected every year for condition and quantity of cone crop. If collection of the cone is warranted, nursery crews mow the areas prior to collection. They also top those trees which have an abundant number of cones. If time permits, they will also fell dead trees and invading species. Inmate crews are used to pick the cones and to remove the tops from the area. The tree tops and other wood debris are usually chipped or cut into manageable lengths and stacked.

The orchards provide the nursery with seed at significant savings. It is the intention of the nursery to continue use of these areas in order to fulfill future seed needs. These areas will require maintenance to continue seed production. Future projects and or maintenance could include annual mowing, periodic pruning, topping, removal of debris, fertilization, and pesticide applications.

Boundary Deed and Access Issues

Mt. Tom State Forest (Washington #1) FAA Tower Rd. This road is gated near the beginning of Shaker Hollow Truck Trail and travels in a northwest – southeast direction. The state boundary is located along the centerline of this road. This road was open at one time for public vehicle access, however, was gated by the FAA in an effort to make the FAA tower site more secure. This road is still used administratively by the department.

Two privately owned parcels exist along the west side of Notch Lane Truck Trail. The Notch Lane Truck Trail closes to vehicle traffic primarily in the springtime when road conditions are sensitive and vehicle use can cause significant damage to the roads. These private property owners may have deeded access to these parcels. If these private landowners are adversely affected by temporary road closures, they are encouraged to contact the DEC in Warrensburg (518) 623-1200.

A few small private parcels appear to be land locked at the end of Shaker Hollow Truck Trail. Shaker Hollow Truck trail has remained open to public motor vehicle use and this appears to be the primary access to these parcels. A TRP has been issued to a timber harvester to move wood from one or more of these parcels down the Truck Trail to a landing located on State Land. The owners of these private parcels have not been able to produce any documentation of deeded easement to these properties as of the writing of this plan.

The FAA tower requires an obstruction free zone around the tower to be able to facilitate radio communications. A small area of state forest along the boundary of the FAA tower facility was cut in the 1950's during construction of the Tower. This area is growing to the point which it will need to be cut again to maintain the necessary FAA clearance. The DEC is currently working with the FAA to determine the best approach to deal with this issue.

Chestnut Woods State Forest (Washington #2) - The access Rd. to the northern portion of this parcel is described as a public road on a survey map of Washington County Reforestation Area #2. The survey was completed August 20, 1933 by Carl P. Fatzinger, District Forester. The access road is located on the north east side of Chestnut Hill Road .36 miles east of the intersection of Chestnut Hill Rd. with McKie Hollow Rd. This access to northern Chestnut Woods State Forest is approximately .25 miles in length and requires 4-Wheel Drive and high clearance.

Batten Kill State Forest (Washington #3) A survey was conducted of this property in 2006. The 2006 survey shows that the state forest does not extend to the summit of Peaked Rock as previously thought, but rather the property ends approximately 200 feet from the summit. The popular "Folded Rock Trail" in this vicinity ends at a scenic view which looks through the trees and out over the Batten Kill Valley.

A small one acre parcel is located in the northwest portion of Washington #3 (Batten Kill State Forest) sandwiched between Route 313 and the Batten Kill River. This parcel is part of a 99 year lease. The lease originated June 5th 1942. The lease will expire on June 5th 2041. Until that time the lease holder may use this parcel for a camp or place of residence, but may not sublet or commercialize the property or use the property for agricultural purposes. The lease holder must also pay any taxes associated with any improvements or structures constructed on this parcel. Upon expiration of this lease the parcel will be managed as state forest.

Cultural Resources

The term cultural resource encompasses a number of categories of human created resources including structures, archaeological sites and related resources. The Department is required by the New York State Historic Preservation Act (SHPA) (PRHPL Article 14) and SEQRA (ECL Article 8) to include such resources in the range of environmental values that are managed on public lands.

Archaeological sites are, simply put, any location where materials (artifacts, ecofacts) or modifications to the landscape reveal evidence of past human activity. This includes a wide range of resources ranging from 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.

A small cemetery exists in an overgrown area north of Eagleville Rd. and west of Route 313. On the Batten Kill State Forest. This area is further described in the Local History portion of this plan.

Remains of what appear to be an old lime kiln have been identified on Mt. Tom State Forest. A large dry stacked stone structure is built into a hillside so that the top rear portion of the structure is at ground level along a path, while the front of the structure is a vertical exposed face which meets the ground at a lower elevation. The structure has caved in at some point, but shows what appears to have been a large opening in the top of the structure. A small cold spring seems to originate near the base of the remains. Downstream from this small spring it has been described are remains of an old dam and likely water powered mill site.

Stone walls and foundations are present on these state forests.

All archaeological sites should be avoided during harvesting operations or other activities which may have a negative impact on the sites. Efforts will be taken to document any archaeological sites discovered during field work on these state forests and to work with volunteers to identify these sites. A comprehensive inventory of these sites will assist with future planning and will help to avoid and preserve these sites during forest operations and recreational use planning.

Landscape Conditions

The southeast corner of Washington County consists of a peaceful mixture of open, active agricultural lands, pristine streams and rivers and forested tracts. Flat river bottoms, gently rolling hills and steep rocky ridges all blend together around state forests to create a unique mixture of field, water and forest that is home to abundant wildlife, hearty livestock and interesting people. Agriculture, tourism and recreation are strong in Washington County. Farm produce, local events, river based recreation, hunting and fishing are some of the many sources of interest that draw people to this area. The state forests and wildlife management area lend a healthy mixture of forest, waters and open areas to the landscape. As public land, these areas are open to many forms of recreation for residents and vacationers to enjoy. It is the goal of the department to continue to manage these areas in such a way to provide forest products, wildlife habitat, watershed protection and recreation in a sustainable manner.

NEEDS ISSUES AND POLICY

The state lands of Washington County are used in a wide variety of ways. This plan is an attempt to identify the use, needs and demands placed upon these state lands and provide comprehensive management actions to best protect the resource into the future while attempting to strike a balance between sometimes conflicting demands on the ecosystem. Management must be accomplished within the framework of the SPSFM, Environmental Conservation Law (ECL), rules and regulations, and NYS DEC policies and procedures.

Access

It is DEC policy to provide appropriate public and operational access to Washington county state lands. Access is a necessity for both public use and land management. Excessive access to state land, however, may detract from the natural character of state forests and wildlife management areas.

Recreation

Many forms of recreation are carried out on these state lands. This public land provides opportunities for locals and even for some people from outside of the area to enjoy the forest, waters, wildlife and nature in general which can be experienced and enjoyed through a number of recreational pursuits. Large group activities such as Boy Scout Camporees or Field dog trials have occurred on state lands in the past and may be allowed in the future. These large activities will be handled through the TRP process and will only be allowed in a manner which has little impact on the areas in question.

Timber

The forests of these public lands provide a valuable natural resource which can provide many benefits, both environmental and economic. Forest management is an integral way to provide multiple habitat needs for wildlife. Maintaining a diverse mixture of vegetative types and stages with attention to forest pests and health concerns will provide a healthy and resilient forest best suited to deal with potential threats from invasive species and environmental disasters. Local demand for all forms of timber will result in local harvesting jobs, hardwood and softwood logs for local mills, pulpwood for local paper mills, and firewood for local residents. The proper sustainable management of this resource will provide a continuous revenue stream to the state while providing the raw material for the chain of value-added wood products derived from these healthy forests.

Green Certification of State Forests

In 2000, New York State DEC-Bureau of State Land Management received Forest Stewardship Council (FSC) certification under an independent audit conducted by the National Wildlife Federation- SmartWood Program. This certification included 720,000 acres of State Forests in DEC Regions 3 through 9 managed for water quality protection, recreation, wildlife habitat, timber and mineral resources (multiple-use). To become certified, the Department had to meet more than 75 rigorous criteria established by FSC. Meeting these criteria established a benchmark for forests managed for long-term ecological, social and economic health. The original certification and contract was for five years.

By 2005 the original audit contract with the SmartWood Program expired. Recognizing the importance and the value of dual certification, the Bureau sought bids from prospective auditing firms to reassess the Bureau's State Forest management system to the two most internationally accepted standards - FSC and the Sustainable Forestry Initiative® (SFI) program. However, contract delays and funding shortfalls slowed the Department's ability to award a new agreement until early 2007.

Following the signed contract with NSF International and Scientific Certification Systems, the Department was again audited for dual certification against FSC and additionally the SFI program standards on over 762,000 acres of State Forests in DEC Regions 3 through 9. This independent audit of State Forests was conducted by these auditing firms from May 2007 until July 2007, with dual certification awarded in January 2008.

State Forests continue to maintain certification under the most current FSC and SFI standards. Forest products derived from wood harvested on State Forests from this point forward could now be labeled as "green certified" through chain-of custody certificates. Green Certified labeling on wood products assures consumers that the raw material was harvested from well-managed forests.

The Department now joins an elite few States, representing less than 10% of working forests, certified as well managed throughout the Northeastern Region of the United States. The Department's State Forests can also be counted as part of over 2.3 million acres of public, private and industrial certified forests in New York. That's over 15% of the total working forest land in New York *third-party certified* as well managed to protect habitat, cultural resources, water, recreation, and economic values now and for future generations.



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responsible forestry
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Utility Lines

Utility lines are present on Mt. Tom State Forest and are associated with the FAA tower located on private land adjacent to the state forest. The lines travel across approximately 2,000 feet of a western portion of the state forest. A swath cleared of vegetation is associated with the lines.

Research

Scientific study, research and education are also uses that occur on these State Lands. Research has been conducted on these state lands in the past and will most likely occur here in the future. Scientific study, research and education are managed through the Temporary Revocable Permit process and License's to Collect and Possess issued through the Division of Fish Wildlife and Marine Resources Special Licenses Unit.

Wildlife

The value of maintaining healthy populations of both plants and animals is generally well accepted. The state has a mandate to protect and manage species that are endangered, threatened, or of special concern. Protection of critical habitats or creation of certain habitat requirements is one method which may be used to help maintain healthy wildlife populations.

Washington County State lands are widely used for hunting, trapping, and fishing. Hunting and fishing license sale numbers in New York have been low over the last few years, however, 2009 hunting and fishing license sales were both higher than sales in each of the previous six years. A total of 1,012,697 hunting licenses and 1,130,351 fishing licenses were sold in 2009. This may have reflected an increase in lifetime license sales due to a pending increase in license prices.

A 2007 Statewide angler survey shows 211,932 angler days were reported in Washington County. 124,103 of those angler days were reported as Washington county residents and 68,253 angler days were residents of the Albany area survey zone. At location expenditures for Washington County was listed as \$1,907,259 and the top three species by percent fished for were; trout 42%, bass 14% and catfish 8%.

Deer take numbers in Washington County have increased slightly from 2007 through 2009.

Washington County New York		
YEAR	# Bucks	# Total Deer

2007	1,909	3,404
2008	2,068	3,450
2009	2,153	3,854

2009 Deer take numbers in state land unit towns are as follows;

Town	# Bucks in 2009	# Total Deer in 2009
White Creek	136	252
Jackson	152	290
Greenwich	155	296

Other popular game hunting on these areas include: grouse, woodcock, turkeys, and pheasants. Since there is a large grassland component at Carter's Pond and Eldridge Swamp these sites are used to release state reared pheasants for both youth weekend and the regular seasons. Wild Turkey populations have rebounded from their population being zero in the mid-1840's to being abundant all over New York State. This success is largely due to the trap and transfer program in 1948 when birds were trapped in Pennsylvania and brought across the border into New York. These were the first turkeys in the state after an absence of 100 years. Since that time careful management of this species has made them a population success story. Turkeys can be readily hunted on these state lands since their year round habitat requirements are being met by managing the resources to include a matrix of pole timber, grasslands, and mast production. Turkey hunting success in towns located within the unit management plan can be further seen in Appendix III.

New York State is rich in its history of trapping and furbearer population successes. Some furbearers are hunted or trapped on these areas for their pelts, meat, and to control over abundant populations such as beaver on Eldridge Swamp and Carter's Pond. Controlling their populations helps to ensure the species is healthy by not allowing them to exceed their carrying capacity which could make them more prone to predation, starvation, and disease. Some of the furbearer species on these areas include: coyote, fox, beaver, muskrat and the occasional river otter has been reported. The list of furbearers trapped and pelt sealed in Washington County can be found in Appendix III.

Casual observation of parking areas on these State Forests and Wildlife Management Areas show increased use during the hunting season. The Warrensburg DEC office receives a significant number of requests each year for maps of the state lands in Washington county to use for hunting purposes. Requests are typically received at the Washington County Fair or over the phone and are usually from residents of Washington or Saratoga Counties or the nearby Albany area, however, there are also a number of users from Vermont who utilize these state lands for hunting and fishing.

The DEC website has an online program available which allows individuals to create their own maps of state lands from the convenience of home. These maps can include State land boundaries, aerial photos, topographic features, roads and trails as well as other interesting

information. The program is called the "State Lands Interactive Mapper" and can be found at: <http://www.dec.ny.gov/outdoor/45478.html>

It is probable that as large privately owned tracts of land in the area are sold and become subdivided, there will be fewer opportunities for sportsmen to gain access to large and unbroken tracts of land for hunting. If sportsmen lose rights to hunt on privately owned land, pressure will most likely increase on State Land.

Water Resources

The Environmental Conservation Law (ECL) dictates that the State Forests within this unit be managed for watershed protection. This is also clearly consistent with Wildlife Management Area objectives, sound conservation practices and public desires. Best Management Practices for water quality are used for all silvicultural practices on State lands. These require specific conservation practices which protect soils and water quality during timber harvest. Well-managed water resources have multiple benefits, including quality fish and wildlife habitats, aesthetically pleasing sites, ground water protection, and flood water retention.

Land Acquisition

New York State has been a leader in recognizing the value of open, undeveloped land. In November 2009 Governor Patterson issued an updated plan prepared by DEC and the Office of Parks Recreation and Historical Preservation, entitled, "**New York State Open Space Conservation Plan**".

The Open Space Plan of 2002, 2006 and 2009 characterizes the need for perpetuation, in a grand sense, of open space and natural landscapes as, "The quality and character of the lives of the people of New York depend upon the quality and character of the land on which we live. Our mountains, lakes, rivers, forests and coastline, our natural landscapes, urban parks and historic resources shape the way we spend our leisure time, affect the long term strength of our economy, determine whether we have clean air and water, support the web of living things of which we are a part, and effect how we think about ourselves and relate to other New Yorkers." NYS DEC will consider the purchase of selected parcels which meet rating requirements, from willing sellers when funding becomes available.

Aesthetic Resources

A sometimes overlooked quality of public lands is their aesthetic appeal. Along with the many tangible benefits of state land management there is a more subjective aspect of management reflected in the visual component of these areas. Often the appearance of one's surroundings is directly related to the feelings and emotions experienced by the viewer. In general, what makes something aesthetically appealing is quite predictable. Scenic vistas, waterfalls, wildlife

and interesting geologic features typically elicit a very positive aesthetic response from the viewer. Dense thickets, cluttered forests, woody debris and overgrown fields would most likely elicit a more negative aesthetic response from the viewer. These typical responses may prove a dilemma to a land manager because some forms of ecologically responsible forest management and wildlife habitat work will elicit this negative reaction even though it is the most appropriate course of action from an ecological perspective. Healthy well-managed forests as well as old growth forests may not look very inviting at all. Even this natural, uninviting look, however, may provide a core subconscious wild lands appeal to the viewer, who even though they may not wish to wander through the area, can still appreciate the appearance of disorder and its benefit at an ecological level. While managing state lands it is important to provide well recognized and appreciated aesthetic opportunities to the public. The manager may also restrict perceived unpleasant views to less traveled areas or use these instances as educational opportunities through kiosks or signs which can educate the viewer to the benefits derived through certain types of management and the associated aesthetics. Regardless of typical aesthetic responses, it is a goal of the manager to create a state land experience where the public is able to find aesthetic enjoyment whether it is on a grand scale or in the most minute details of a healthy ecosystem.

Facilities Maintenance

The state land units in this plan are held together by a network of facilities, man-made structures, which provide;

- Safe public and administrative access into the unit.
- Parking
- Educational, identification, and cautionary signs
- Habitat structures
- Dams
- Accessibility structures

Effective management of these State lands is dependent upon the regular and proper maintenance of these facilities. Appropriate maintenance will help account for better safety of the public and will allow the Department to carry out its goal of management.

State Environmental Quality Review Act

This Unit Management Plan (UMP) does not propose pesticide applications of more than 40 acres, any clearcuts of 40 acres or larger, or prescribed burns in excess of 100 acres. Therefore the actions in the plan do not exceed the thresholds set forth in the Strategic Plan/Generic Environmental Impact Statement for State Forest Management.

This Unit Management Plan also does not include any of the following:

1. Forest management activities occurring on acreage occupied by protected species ranked S1, S2, G1, G2 or G3
2. Pesticide applications adjacent to plants ranked S1, S2, G1, G2 or G3
3. Aerial pesticide spraying by airplane or helicopter
4. Any development of facilities with potable water supplies, septic system supported restrooms, camping areas with more than 10 sites or development in excess of other limits established in this plan.
5. Well drilling plans
6. Well pad densities of greater than one well pad in 320 acres or which does not comply with the limitations identified through a tract assessment
7. Carbon injection and storage or waste water disposal

Therefore the actions proposed in this UMP will be carried out in conformance with the conditions and thresholds established for such actions in the Strategic Plan/Generic Environmental Impact Statement , and do not require any separate site specific environmental review (see 6 NYCRR 617.10[d]).

Actions not covered by the Strategic Plan/Generic Environmental Impact Statement

Any action taken by the Department on this unit that is not addressed in this Unit Management Plan and is not addressed in the Strategic Plan/Generic Environmental Impact Statement may need a separate site specific environmental review.

MANAGEMENT GOAL

It will be the goal of the Department to manage state lands for multiple benefits to serve the needs of the People of New York State. This management will be considered on a landscape level, not only to ensure the biological diversity and protections of the ecosystem, but also to optimize the many benefits to the public that these lands provide. More specifically, the Department strives to;

1. Provide healthy and biologically diverse ecosystems. To do this DEC will manage State Forests so they are judged to be in a high degree of health as measured by multiple criteria, including the biodiversity that they support, how connected they are to other forests, and their ecological function.

2. Maintain human-made state forest assets. Boundary lines, trails, roads and any other infrastructure or objects that exist because they were put there by people will be maintained. It is the DEC's intent to ensure that all human-made items on State Forests are adequately maintained to safely perform their intended function.

3. Provide recreational opportunities for people of all ages and abilities. While not all people will be able to have the experience they desire on every State Forest, DEC will endeavor

to provide recreational opportunities to all who wish to experience the outdoors in a relatively undeveloped setting. This is consistent with DEC's goal of helping citizens maintain a connection with nature.

4. Provide economic benefits to the people of the state. Environmental Conservation Law states; "It is hereby declared to be the policy of the State of New York to conserve, improve and protect its natural resources and environment and to prevent, abate and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well being." In considering all proposed actions, DEC will attempt to balance environmental protection with economic benefit.

5. Provide a legal framework for forest conservation and sustainable management of state forests by implementing the Strategic Plan for State Forest Management. Staff must have clear and sound guidance to direct their decisions and actions. Likewise, the public must have clear information regarding what they are and are not allowed to do on State Forests. Both functions are provided for by well-written laws, regulations and policies. DEC will work to improve existing legal guidance where it has proved to be inadequate, and create new guidance as needed.

A full discussion of the laws, regulations, and policies within which this plan is prepared and how these lands and resources are to be used can be found in the SPSFM located at <http://www.dec.ny.gov/lands/64567.html> . In addition, The Environmental Conservation Law of the State of New York is available to the public at local libraries, NYS DEC offices, from private vendors, and at <http://www.dec.ny.gov/regulations/40195.html> on the internet.

MANAGEMENT OBJECTIVES AND ACTIONS

Access

Existing access to the units in this plan is adequate in most cases. A network of public roads, administrative access roads, recreational trails, and skid trails provide access to a majority of the area in these units. Some additional parking needs have been identified.

Parking at south end of Chestnut woods State Forest must be improved. Existing gate on gravel pit road will be moved to a point further east up the road where a 2-3 car parking lot can be built on the north side of the road. This will keep traffic off the town road and will provide better parking and access to Chestnut Woods State Forest. Signs will have to be installed with the construction of this parking lot to make sure the gravel pit road is not blocked.

Parking at Goose Egg State Forest will be improved through construction of a 2-3 car parking lot at the end of the access road off Bates Rd.

Parking lots located on the east and west side of Route 313 Eldridge Swamp State Forest will be improved through more specific lot delineation and regular mowing.

Parking lot at the seed orchard on Mt. Tom State Forest will be improved through proper drainage development along access road and away from parking area as well as along driveway to parking lot.

Parking lots at Carter’s Pond Wildlife Management Area will be improved through the addition of gravel. The parking lot at the site of the boat launch (CPP2) will have a french drain and water deflectors installed.

Parking lot construction south of Eagleville Rd. if needed, would provide parking for up to 20 vehicles. (See description in Public Use and Recreation section)

Maintenance of Truck Trails, recreational trails and parking lots need to be monitored and kept up. Identification of potential additional access will be considered as needs are encountered and will be handled through UMP revisions.

There are 31 miles of boundary line associated with the State Lands in this Unit. A majority of these lines are recognizable but there are portions of line which may need to be surveyed. These boundaries should be painted and signed on a five year schedule to keep the boundary up to date. Approximately 6 miles of boundary should be painted each year. Three portions of Carters Pond boundary will need to be identified on the ground by the Department’s Surveyors. The northwest corner, northeast corner and a portion along the east edge of the area.

Access

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Identify need for additional access	1.0	Survey site(s)	As Needed
		1.1	Receive public comments	On Going
2	Construct identified additional access	2.0	Revise/amend UMP as required to accommodate the construction of additional access.	Every 10 years or as needs are identified
		2.1	Create access to water edge for people with disabilities at Batten Kill State Forest Batten Kill River Access.	One Time
3	Maintain Roads	3.0	Inspect Culverts	Annually
		3.1	Replace Culverts	When no longer functional
		3.2	Public Access Roads – grade and maintain surface.	Bi-Annually or sooner if issues arise.

		3.3	Administrative Access Roads – grade and maintain surface	Every 5 years or sooner if issues arise.
		3.4	Inspect ditches	Annually
		3.5	Clean ditches	Annually
		3.6	Mow roads right of way	Annually
		3.7	Inspect Shaker Hollow TT Bridge	Annually
4	Construct additional parking lots	4.0	Determine need for additional parking	On Going
		4.1	Revise/amend UMP as required to accommodate the construction of additional parking lots	Every 10 years or as needs are identified
		4.2	Construct 2-3 car parking lot at south end of Chestnut Woods State Forest	One Time
		4.3	Construct 2-3 car parking lot at Goose Egg State Forest	One Time
		4.4	Improve parking lots on east and west sides Route 313 Eldridge Swamp State Forest	One Time
		4.5	Improve parking lot at seed orchard Mt. Tom State Forest	One Time
		4.6	Construct 20-car parking lot south side Eagleville Rd.	One Time
		4.7	Harden and sign 1 parking spot at existing Batten Kill River Access (Eagleville Rd.) for people with disabilities.	One Time
5	Maintain Parking Areas	5.0	Litter removal	As Needed
		5.1	Maintain parking lot delineation	As Needed
		5.2	Mowing	Annually or more as

				needed
		5.3	Maintain informational signs	Annually
		5.4	Spread gravel / grade	As Needed
		5.5	Resurface Carter's Pond parking lot with gravel / grade. (Northern County Route 49 parking lot)	One Time
		5.6	Install water control devices Carter's Pond Route 49 northern parking lot	One Time
6	Boundary Maintenance	6.0	Paint 6 miles of boundary	Annually
		6.1	Department surveyors clarify Carters boundary.	As Needed

Public Use and Recreation

Wildlife-related recreation, including hunting, fishing, trapping and viewing is a dominant and important use of the units in this plan. Users are encouraged to adhere to standards of equitable distribution, humane treatment, fair chase and ethics.

River based recreation is another dominant form of recreation which has an effect on the Batten Kill State Forest and Eldridge Swamp State Forest. The Batten Kill River runs along the edge of both of these units.

Fisherman and summer recreationalists share the Batten Kill River mainly during the warm summer months. Fishing easements allow access to a significant amount of shoreline for fishing, while State Forest land allows general public access to portions of the river adjacent to state land. Public access to the river can also be gained at additional locations off state forest land.

A river access at a small parking lot along the Eagleville Road on Batten Kill State Forest experiences a significant amount of pressure during the summer months as people use this for a boating / tubing access point in addition to fishing. The area between the parking lot and river should be hardened to create access for people with disabilities from the parking lot to the water edge. The hardening will also serve to prevent potential erosion to the stream bank and access trail at this popular location. One parking spot at this location will also be evaluated, improved to make it accessible, and signed to be reserved only for people with disabilities.

Summertime gatherings further down Eagleville Rd. at the Eagleville covered bridge and private property downstream of the bridge have caused an issue along the Eagleville Rd. as individuals line both sides of the road with parked vehicles, and drive vehicles across State Forest Land in an attempt to gain access to a popular party spot on private land. Although these large gatherings are limited to peak summer times, they often create a hazard by blocking the travel

lanes of Eagleville Rd. and covered bridge. This plan recommends continued signing of the Eagleville Rd. against parking between the river access lot and the covered bridge while allowing parking on the north side of the road to the east of the river access parking lot. If signing the roadsides against parking is not effective in reducing the hazards in this area a parking lot will be constructed on the south side of Eagleville Rd. and to the east of the existing river access parking lot to alleviate the pressure of high summertime use along the road edges and illegal motor vehicle use across state land. This parking lot would be sized to accommodate up to 20 cars, delineated with barriers such as boulders and would have to be built in conjunction with roadside signing and enforcement along Eagleville Rd. This parking lot and surrounding area would be created for day use only.

Hiking occurs on all of the state land units of Washington County, however, two of the more popular and developed areas are the nature trail at Carter's Pond Wildlife Management Area and Batten Kill State Forest. These two locations each have a marked hiking trail. The Carter's Pond trail has had extensive improvements in recent years and includes a half-mile wheelchair accessible loop trail. The Department will work with volunteers through volunteer agreements when possible to maintain these trails and associated facilities including the need for a bridge on the Folded Rock Trail. Interest in a multiple use trail has been expressed by some local individuals. A location on Mt. Tom State Forest has been identified which would make an appropriate trail location and would provide nearly a five mile trail opportunity utilizing sections of access trails, truck trail and new trail construction. A trailhead register has been installed at the Folded Rock trail on Batten Kill State Forest to assist in collecting use data and to assist the local Forest Ranger in case of an emergency. The Folded Rock Trail register 2009 statistics exist from May through December. The month of June showed the highest use with 68 total people and 103 visitor days, indicating some visits included camping. The total number of visitors from May through December was 320. Number of visitor days for that time period was 355.

At least one portion of the Folded Rock Trail should be re-routed due to steep terrain. Trail conditions on all state forests and Carter's Pond will be monitored to determine maintenance needs. Conditions may necessitate re-routes, temporary closures, or possibly permanent closures if actions cannot be taken to correct poor trail conditions or safety hazards.

A foot bridge across Whittaker Brook, just south of the dam at Carter's Pond will be built connecting the Nature Trail to the lands along Ferguson Rd.

Routes have been identified on Eldridge Swamp State Forest which would be suitable for motor vehicle access under the Motorized Access Program for People with Disabilities (MAPPWD). These routes follow existing paths and will allow vehicular access to low land and high land portions of Eldridge Swamp State Forest including wooded, grassy and old field areas. Motor vehicle use will be allowed only by permit holders. Due to the nature of the routes south of Route 313, motor vehicle use will be restricted to ATV use only. Routes north of Route 313 will be open to ATV or four wheel drive automobiles. These routes may be temporarily closed to Motorized access seasonally when route conditions are susceptible to rutting, when trails require maintenance or during timber harvest operations when they will be used by timber harvesting equipment. These routes include approximately .5 miles of trail in the northern portion of the state forest and 1.2 miles of trail in the southern portion of the state forest. Routes are identified in the map section of this plan.

Limited information for the public in support of recreational opportunities exists. An electronic brochure and maps describing the state land units will be developed which may be placed on the DEC website or can be sent to interested members of the public through e-mail. The

brochure and maps are also available in hard copy format upon request. Kiosks will also be developed and installed at a few locations of interest to highlight environmental surroundings, recreational opportunities, management actions and sensitive areas. Kiosks will be developed and installed at the Batten Kill River Access and Folded Rock Trailhead (Batten Kill State Forest) Parking lot west side Route 313 (Eldridge Swamp State Forest) and Parking lot at seed orchard / possible trailhead (Mt. Tom State Forest).

Application of 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 requires, in part, that reasonable modifications must be made to the services and programs of public entities, 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.

Consistent with ADA requirements, the Department incorporates accessibility for people with disabilities into the planning, construction and alteration of recreational facilities and assets supporting them. This UMP incorporates an inventory of all the recreational facilities or assets supporting the programs and services available on the unit, and an assessment of the programs, services and facilities on the unit to determine the level of accessibility provided. In conducting this assessment, DEC employs guidelines which ensure that programs are accessible, including buildings, facilities, and vehicles, in terms of architecture and design, transportation and communication to individuals with disabilities. A federal agency known as the Access Board has issued the ADA Accessibility Guidelines (ADAAG) for this purpose.

An assessment was conducted, in the development of this UMP, to determine appropriate accessibility enhancements which may include developing new or upgrading of existing facilities or assets. The Department is not required to make each of its existing facilities and assets accessible so long as the Department's programs, taken as a whole, are accessible. Any new facilities, assets and accessibility improvements to existing facilities or assets proposed in this UMP are identified in the Proposed Management Actions section.

For copies of any of the above mentioned laws or guidelines relating to accessibility, contact Carole Fraser, DEC Universal Access Program Coordinator at 518-402-9428 or UniversalAccessProgram@gw.dec.state.ny.us

Recreation

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Identify additional recreation	1.0	Receive public input	On Going

	needs	1.1	Monitor use patterns	On Going
2	Coordinate with volunteer groups to construct and / or maintain existing and / or future recreational facilities through volunteer agreements	2.0	Identify resources and / or volunteer groups to form additional partnerships.	On Going
		2.1	Work with volunteers, when identified, to construct multiple use trail on Mt. Tom State Forest	On Going
		2.2	Work with volunteers, when identified, to maintain Folded Rock Trail / construct foot bridge Batten Kill State Forest	On Going
		2.3	Work with volunteers, when identified, to maintain nature trail / observation tower Carter's Pond Wildlife Management Area	On Going
		2.4	Provide resources / technical support to assist volunteer groups maintaining existing recreational facilities	As Needed
		2.5	Provide resources or utilize opportunities as needed to maintain and enhance existing trails	On Going
3	Determine feasibility and / or compatibility of proposed additional recreational opportunities.	3.0	In house review of proposed projects	As Needed
4	Modify recreational opportunities	4.0	Maintain and improve access for people with disabilities	On Going
		4.1	Construct gates / barriers to discourage motorized use of skid trails / administrative roads / areas	As Needed
		4.2	Create a shorter loop trail at Carter's Pond and provide UTAP assessment.	One Time
		4.3	Build a Foot Bridge across Whittaker Brook south of	One Time

			Carter's Pond connecting Nature Trail to lands near Ferguson Rd.	
		4.4	Sign, open and maintain MAPPWD access routes on Eldridge Swamp State Forest. Install gates at these locations.	As needed
5	Maintain recreational facilities	5.0	Maintain trails, access points, bridges, boardwalks and observation tower to provide safe facilities for public recreation.	As funding is available prioritized by public health and safety needs.
		5.1	Reroute an approximate ¼ mile section of the Folded Rock Trail due to steep terrain.	One time
6	Increase public awareness of recreation opportunities	6.0	Provide brochures and maps for users	As Needed
		6.1	Provide kiosks at trailheads / areas of interest including Folded Rock Trailhead, Seed orchard and potential trailhead, Batten Kill River access, Eldridge Swamp parking lot	By 2015
7	Enhance aesthetic appeal	7.0	Create and maintain scenic vistas (see aesthetic resources table)	As Needed
		7.1	Remove litter from State Land	As Needed
		7.2	Encourage assistance from volunteers to remove litter.	On Going
8	Advocate wildlife –based recreation	8.0	Encourage hunting, trapping, and fishing according to State regulations	On Going

Timber and Vegetation Management

The objective of timber and vegetation management on these lands is to provide a sustainable yield of forest products, maintain vegetation at various stages of succession and promote healthy ecosystems.

Forest Inventory is required at a minimum of every 10 years. Inventory data for Washington #1,#2,#3,and #4 are quickly approaching that threshold and will need to be re-inventoried as soon as possible upon completion of this plan to provide an up to date record of forest types, vegetative stages and timber volumes. A Re-inventory will be completed on any stand with inventory data older than ten years, before a timber harvest will occur in that stand. Timber Harvests may occur on stands where the inventory is up to date. Additionally, a post-harvest inventory will be conducted in these stands at the end of each harvest operation.

Site index, cutting cycle, acreage and forest types give us a rough idea of the number of acres which can be sustainably cut across our state forests annually. These numbers are influenced by many factors and do not necessarily represent what will be cut each year, however they do serve as a reference to guide forest management across this unit.

Inventory Data Summary. Latest inventories were done between 2001-2009. Washington #1 and #2 were done in 2001. Washington #3 and #4 were done in 2002. Washington #5 was done in 2009.

Forest Lands				Volume	
State Forest	Total Acres	Commercial	Non commercial	Per / Acre (MBF)	Total (MMBF)
Wash #1	1765	1602	163**	8.5	13.617
Wash #2	802	671	131**	9.9	6.64
Wash #3	457	457	0	10.1	4.616
Wash #4	526	400	126**	9.1	3.64
Wash #5	512	259	253**	7.2	1.865
Totals	4062	3389	673	Average 9.0	30.378

**Seed Orchard, wetlands, fields etc.

Cutting Budget: Uneven Aged Stands

Site Index	Acreage	Cutting Cycle	Average Annual Cut
I	846	20 years	42 Acres
II	527	20 years	26 Acres
III	400	30 years	13 Acres
Total	1773		81 Acres

Cutting Budget: Even Aged Stands

Site Index	Acreage	Max Rotation	Cutting Intervals	Average Annual Cut
I & II	1128	100 years	20 years	56
III	258	150 years	30 years	9
Total	1386			65

Summary of Planned Harvest / Thinning Activities 2011 - 2021

Stocking	Harvest		Commercial Thinning	Total
	Uneven Aged	Even Aged		
>100%	98	16	222	336
90-100%	506	134	253	893
Total	604	150	475	1229

Highest Priority Stands (Stocking >100%)

State Forest	Compartment - Stand	Harvest acres	Commercial Thinning acres
Washington #1	1-15, 1-16, 2-20, 2-24, 2-25	60	
Washington #2	1-11, 1-16, 2-1, 2-6, 2-7	11	144
Washington #3	1-6	43	
Washington #5	1-5, 1-7, 2-12		78
Total		114	222

High Priority Stands (stocking 90-100%)

State Forest	Compartment - Stand	Harvest acres	Commercial Thinning acres
Washington #1	1-8, 2-2, 2-11, 2-23	173	
Washington #2	1-7, 1-12, 2-2, 2-4, 2-5	17	102
Washington #3	1-1, 1-2, 1-3, 1-4, 1-5, 1-7, 1-8	321	84
Washington #4	1-1, 1-8, 1-10	129	23
Washington #5	2-9, 2-15		44
Total		640	253

The diversity of vegetative stages are somewhat deficient when looking at the State Forests of Washington County on the landscape level. The number of forest stands classified in the 0-5 inch size class is not adequately represented. While there are a significant number of trees across this unit which fall into this size class, the number of forest stands categorized in this size class is low. Maintaining a healthy diversity of stand size classes will require prioritizing harvests which would result in creating stands in the 0-5 inch size range.

Carter's Pond Wildlife Management Area also shows some deficiencies in vegetative types and stages. To increase biodiversity, management may focus on increasing the softwood component of this area, through natural regeneration or planting. A larger softwood component would increase the diversity of forest types. Creating a better balance between vegetative stages could be accomplished through creating patches of forested areas in the 0-5 inch size range throughout the existing stands. Irregular edges of patch clearcuts will provide more benefits to wildlife. Currently there are 56 acres of wetland / alder located in the northern central portion of Carter's Pond WMA which spreads in a southerly direction around the east and west edges of the open water of Carter's Pond. Alder has been identified as an important forest species which benefits Woodcock as well as many other wildlife species. Management of Carter's Pond Wildlife Management Area recognizes the importance of the Alder Component and will strive to retain and enhance that component where possible. Grouse benefit greatly from small stands of varying age aspen and birch. Management of Carter's Pond Wildlife Management Area as well as appropriate locations in state forests throughout this unit will create small patch rotations of birch and aspen in close proximity to encourage grouse habitat.

Manage 1,386 acres of the natural hardwood and the mixed natural hardwood/conifer types to develop even-aged forests with a maximum age class of approximately 100-120 years. As resources permit, these stands will be thinned every 20-30 years.

Manage 1,773 acres of the natural hardwood and mixed natural hardwood/conifer types to develop all-aged forests with a maximum age class of approximately 120-150 years. These stands will also be thinned every 20-30 years, as resources permit.

Manage 275 acres of conifer plantations. These acres are mostly made up of plantations established in the 1930's and plantations established in the past 20 years. Nursery plantations cover 32 acres and will be managed separately for seed production. The remaining 243 acres of plantation are located on Washington #1 and Washington #2. As the plantations are harvested, the percentage of plantations in the unit will be reduced over time by 26% maintaining the core plantation areas and allowing the mixed plantations on the periphery to regenerate naturally. Core existing plantation areas that are suitable for conifer plantations will be maintained as such. Most of the plantation acreage which is not retained as a plantation will be managed to naturally regenerate an evergreen component where possible. The remaining areas will be managed to regenerate even aged natural hardwoods best suited to the site. As resources permit, the conifer plantations will be thinned every 15-20 years with a final harvest scheduled for 80-100 years of age in a healthy stand.

Based on the Ecoregional Landscape Assessment outlined in the SPSFM, the Lower New England – Northern Piedmont Ecoregion is lacking in evergreen component. Forest management practices in this unit will strive to conserve, enhance and sustain evergreen cover when possible through natural regeneration and if conditions are appropriate, through planting.

Batten Kill State Forest and Goose Egg State Forest contain a stand of chestnut oak recognized as a significant community. Suppression of forest fires in this community will tend to facilitate the loss of the current ecological requirements of the present vegetative cover of the area.

Forest fires have most likely played a historic role in fostering this type of community. Fires tend to remove excess organic material from the site, maintain exposed bedrock areas and allow more light to reach the ground. These conditions help to provide the site requirements needed to sustain this community. Fire may be a management tool used to perpetuate this forest type. Any fire management done in the Washington County Unit will be carried out from an approved fire management plan and under the supervision of the Division of Forest Protection and Fire Management.

Stand composition and vegetative type are influenced by many things - past and current timber harvesting will result in changes of available seeds, both those found in the soil and what is produced from mature trees. How much sunlight reaches the ground and/or smaller trees and shrubs under the taller trees is a result of how many trees are removed. The time of year of a cutting may influence the stand. Winter cutting may result in rapid sprouting in the spring from some tree species stumps; and, summer cutting may result in more seeds sprouting in exposed mineral soil. Other factors to consider are; was the area a pasture, field, or woodlot before re-growing to trees and when was the area planted or left to naturally regenerate to forest. The density of deer and other browsing animals also play a factor, including domestic ones. Deer and rabbits eat young seedlings; some animals scrape the bark off saplings etc. Some of these factors are controllable, others are not. Part of marking a stand for harvest includes balancing what can be controlled against what cannot be.

Timber harvests and thinning activities will be prioritized. Priority is determined through stocking levels obtained through forest inventory, and is affected by stand proximity, ecological and economic factors. A stand which exhibits a lesser priority level may be increased in priority if it meets DEC management goals and makes sense ecologically or economically. Salvage operations are an example of one instance which may create an unplanned increase in priority of a stand. Timber harvest locations may be planned based on the following criteria: 1) Present and future forest health concerns; 2) Current distribution of vegetative stages within the unit management plan area; 3) Ability to regenerate stands (if a regeneration harvest); 4) Adequate access to stand; 5) Priority needs of other unit management plans; 6) Wildlife considerations; 7) Market conditions; 8) Potential growth response of stands to treatment (if a thinning).

Potential stands which have been identified for treatment are analyzed for specific treatment to establish a marking guide. Guides are often specific and apply only to certain forest types, management systems, or treatments. Stand analysis guides were developed by US Forest Service, SUNY College of Environmental Science and Forestry, or other academic institutions. The more common guides used are: Silvah, NED SIPS, Northern Hardwood Stocking Guide, and Central Hardwood Stocking Guide. Marking guides provide a way to assist foresters in identifying species, size, and quantity of trees that should be removed, to achieve the desired future stand composition.

Trees to be removed in a harvest are designated by NYS DEC forestry staff using tree marking paint. After designation is completed, a minimum bid is determined based on the estimated volume of the marked trees. Stands are prioritized for sale activity based on vegetative types and diversity and the desired future conditions identified by this Unit Management Plan. Prioritization is done by NYS DEC forestry staff, with input by wildlife staff.

There are two types of timber sale contracts, revenue contracts and local sales. Sales greater than \$10,000 are called revenue contracts. For revenue contracts, trees are designated, and the paperwork assembled by regional NYS DEC foresters and forwarded to the NYS DEC Albany office for processing. Bid notices are sent to the list of known interested bidders, and a legal

notice is posted in the local newspaper. Sales up to \$10,000 are known as local sales. Local sale trees are designated, and the paperwork assembled, by the regional NYS DEC foresters and sent directly to the known interested bidders. Revenue contract bids are opened in Albany; local sale bids are opened in the Warrensburg NYS DEC office. In both cases, the highest bidder buys the sale for the amount submitted. Each NYS DEC Forestry office maintains a list of known interested bidders. To get on the list, contact the NYS DEC forestry office in Warrensburg, NY. Small local sales (minimum bid of less than \$500) may be handled as a negotiated sale rather than a bid.

All sales are administered by a State Forester, using standard "DEC Sale of Forest Products" contracts. In the case of revenue contract, the paperwork is sent from Albany to the highest bidder. For local sales, the highest bidder will meet with the local NYS DEC forester. All payments are received in advance of harvesting. Proof of insurance is required, or may be purchased for each sale from NYS DEC. Revenue contracts over \$10,000 require a performance bond; sales under \$10,000 may require a performance bond at the discretion of Regional Foresters. The logging is periodically monitored by NYS DEC staff for the duration of the operation. The performance bond is returned if all conditions of the sale have been satisfied.

A new requirement which began in August 2010 makes it necessary for all contractors and their employees who fell and handle trees on State Forests to be Trained Logger Certified (TLC). "The Trained Logger Certification program was developed to recognize loggers who complete a training schedule involving three "core" areas of knowledge and skills. During the three-year validation period of TLC, these individuals make a commitment to continuing their education in order to improve themselves and maintain their TLC status.

The "core" areas are Chainsaw Operation, Safety, & Productivity; Environmental Concerns; and Adult First Aid & CPR. An individual completing these three workshops is eligible to receive initial TLC recognition. TLC is available by attending NYLT sponsored workshops, or by providing documentation of completion of approved workshops offered by other organizations." (New York Logger Training Website, 2011 <http://www.nyloggertraining.org/home/default.asp>)

Forest biologic diversity is greatly increased through the use of forest retention. Forest retention pertains to the quantity and distribution of live and dead trees to be retained during stand treatments through at least the next rotation. DEC policy regarding forest retention will be used to assist foresters in determining the best and most appropriate methods for use of various forest retention practices. Forest retention practices include;

- Cavity Trees – live or dead trees with excavations sufficient for wildlife nesting, denning and shelter.
- Coarse Woody Debris (CWD) – Any piece of dead wood greater than 6 inches in diameter including logs, limbs, and large root masses on the ground or in streams (Helms, 1998).
- Fine Woody Material (FWM) – Any piece of dead wood less than or equal to 6 inches in diameter including stems, tree tops, slash and branches on the ground.
- Hardwood / Conifer Inclusion – Groups or individual stems of hardwoods or conifers within conifer or hardwood stands respectively. The area and / or distribution of the inclusions are such that it is not practical to type them out as individual stands.
- Recruitment (Legacy) Tree – Live tree that is permanently retained to eventually develop into a cavity tree, snag, or downed woody material (CWD and FWM) within the stand or to retain a unique feature on the landscape.
- Reserve Tree – Overstory tree left uncut through at least the next harvest rotation.

- Retention – A forest management tool designed to retain trees as key structural elements of a harvested stand for at least one harvest rotation (Franklin et al. 1997).
- Rotation – In even-aged systems, the period between regeneration establishment and final cutting (Helms, 1988)
- Snag – A standing dead tree that is at least 20 feet tall (DeGraff and Shigo, 1985).

Various additional actions that will be carried out across the State Forests to benefit wildlife include but are not limited to:

- Maintaining a component of mature, rough barked trees such as hickories and maples throughout the unit which will improve bat habitat.
- In appropriate timber harvest scenarios, create slash / brush piles along forest / old field boundaries.
- Release and prune apple trees found across the unit to stimulate fruit production.

Timber and vegetation

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Work toward establishing a variety of tree species and age classes to provide for biodiversity on a landscape basis.	1.0	Prioritize harvest activities in stands which would increase the number of acres categorized in the 0-5 inch size class to reach a suitable balance of stand size structure across the state forests. By following the allowable harvest in the even aged stands this balance should be met by increasing the percentage of this size class to 8-10%. This will also add diversity on the landscape level as many surrounding properties are cleared for agriculture or have a mature forest component.	On Going
		1.1	Follow department policy regarding retention practices of snags, cavity trees, recruitment trees, reserve trees, hardwood/conifer inclusions, coarse woody debris and fine woody	On Going

			material.	
		1.2	Increase component of young vegetational stage in Carter's Pond WMA through a series of small group selection cuts concentrating on irregular edge.	Ongoing Pending division of wildlife decision
		1.3	Increase softwood component of Carter's Pond WMA forest stands through planting or natural regeneration cuts.	Ongoing Pending division of wildlife decision
2	Work within the annual allowable cut on State Forests for a sustained yield of wood products that is within the productive biological capacity of the forest and which does not significantly compromise other resource values.	2.0	Average annual cut of 81 acres for uneven aged stands.	Annually
		2.1	Average annual cut of 65 acres for even aged stands.	Annually
		2.2	Reduce number of plantations by 26% from 243 acres to 180 acres.	On Going
3	Maintain 75 acres across State Forests and 60 acres in Carter's Pond WMA in an open – brush or a grassland condition.	3.0	Mow 33 acres of old field area on Batten Kill State Forest to maintain brush or grassland condition.	Every two years
		3.1	Mow / burn 42 acres of old field areas on Eldridge Swamp State Forest to maintain brush or grassland condition.	Every two years
		3.2	Mow / burn 60 acres of old field areas on Carter's Pond Wildlife Management Area to improve grassland condition.	Every two years
4	Inventory State Forests on a 10 year cycle and individual stands after treatment.	4.0	Inventory Washington #1, #2, #3, #4 within 2 years of completion of final UMP.	Every 10 years
		4.1	Maintain current forest inventory in all units	Every 10 years
5	Invasive Plants	5.0	Survey, inventory and remove invasive herbaceous and woody materials through	As needed

			pesticides and manual efforts in accordance with state law and department policy.	
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Seed Production

The Mt. Tom seed orchard is currently used by the Saratoga Tree Nursery to provide a portion of the seeds needed for the State Tree Nursery Program. This area will continue to be managed for the production of seed.

Seed Production

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Continue to work with the Nursery to maintain the Mt. Tom Seed Orchard to provide necessary seed.	1.0	Maintain administrative access to Seed Orchard.	As Needed
		1.1	Mowing	Annually
		1.2	Pruning	As Needed
		1.3	Topping	As Needed
		1.4	Removal of debris	As Needed
		1.5	Fertilization	As Needed
		1.6	Pesticide application	As Needed
		1.7	Install Informational Kiosk at Seed Orchard Parking Lot.	One Time

Utility Lines

Utility corridors, facilities and structures can be found on some of the state forests and wildlife management areas throughout the state. The primary consideration when undertaking any new facility construction or the maintenance of existing facilities is the need to minimize forest fragmentation and development. The DEC is not authorized to lease Reforestation Areas, except under specific circumstances defined in the Environmental Conservation Law. This demonstrates the intent to minimize development or fragmentation of these lands. A utility corridor exists on Mt. Tom State Forest to supply power to an FAA tower located on private land adjacent to Mt. Tom State Forest. The origins of this Utility corridor are not well documented.

Utility Lines

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Work with Real Property and the FAA to develop an appropriate arrangement for the Utility Corridor and Tower maintenance requirements.	1.0	Investigate the history of the Utility corridor across Mt. Tom State Forest and tree cutting for FAA tower requirements.	On Going
		1.1	Secure proper compensation for the State / or establish a legal basis for continued use of corridor and tree cutting requirements.	On Going

Research

Any group organizing research activity or a competitive or group event must apply for a Temporary Revocable permit (TRP) from the Department. Historically, TRPs have been issued for lean-to construction, cross country races, forest insect research, wildlife research, town road maintenance and utility line right-of-way work among many other purposes. TRPs allow foresters to carefully review and oversee the variety of special events and proposed activities that sometimes occur on State Forests. Through the TRP review process, DEC avoids conflicting uses of state land and situations that could threaten health, public safety or integrity of natural resources. The permits also enable corrective actions by neighboring parties, which would otherwise be prohibited by regulation, such as the cutting of hazard trees that pose a threat to adjoining properties. In general, TRPs are required for any activity that exceeds normal permissible levels of usage or access. TRP authorization does not provide exemption to any existing state laws and regulations. There is a \$25 administrative fee for this permit. To hold any event, a sponsoring organization must request permission in writing at least 30 days in advance of the date of the proposed activity. The TRP applicant or sponsoring organization must provide proof of liability insurance. TRPs often have specific stipulations pertinent to the activity in question and TRPs are authorized by DEC policy.

Research

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
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1	Support research on state lands where research activities coincide with department goals.	1.0	Use the TRP process to work with organizations wishing to conduct research activities.	On Going
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Gravel Pits

The gravel pit located on Chestnut Woods State Forest as well as any other potential small-scale surface mining sites may be used for administrative use and infrastructure purposes to aid in the construction and maintenance of roads and parking lots in these units. Mining activity must remain below the threshold established in ECL, above which a Mined Land Reclamation Permit is required (1,000 tons or 750 cubic yards, whichever is less, removed from the earth during twelve successive calendar months; this is approximately equal to 40-50 tandem-axle (10-wheeler) dump truck loads.

Gravel

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Utilize state gravel pit for unit maintenance projects.	1.0	Maintain access road to gravel pit in Chestnut Woods State Forest	As Needed
		1.1	Utilize gravel from Chestnut Woods gravel pit as needed for projects on these units in conformance with ECL.	As Needed

Fish and Wildlife Habitat

Fish and wildlife habitat goals for the unit are to maintain and enhance habitat for fish and wildlife species and to provide public access for activities including hunting, fishing, trapping, wildlife viewing and other compatible recreational pursuits.

Old agricultural lands on Carter's Pond Wildlife Management Area, and on Eldridge Swamp and Batten Kill State Forests contain grasslands and old field areas. Prescribed fire is one tool which can be used to improve nutrient composition, control invasive species and improve the quality of grassland habitat for bird species such as the Henslow's sparrow, grasshopper sparrow, bobolink, and savannah sparrow. The quality of habitat in grasslands is reduced for many bird species when shrubs and other successional species encroach into open fields. Prescribed fire is intended to remove the build-up of dead vegetation, encourage new grass growth, and control undesirable vegetation such as honeysuckle, thistle, milkweed, goldenrod,

asters, and various shrub species while maintaining open grassland characteristics. Any potential prescribed burning of these areas will support Forest Rangers in their traditional responsibilities of controlling the ignition and spread of wildfire on State Forests. Prescribed burns will be used to maintain naturally occurring fire-dependent communities on State Forests.

The Divisions of Lands and Forests and Fish, Wildlife and Marine Resources are heavily reliant on the support and cooperation of the Division of Forest Protection and Fire Management. Their Forest Rangers review fire plans for state lands, help oversee and develop prescribed fire programs and are responsible for maintaining an organization which is capable of responding to wildland fire. In the protected areas of fire districts and fire towns, Forest Rangers share dual jurisdiction with village and town fire departments under the General Municipal Laws.

Engaging in partnership with multiple DEC programs, state agencies, non-profit groups, municipalities and private landowners is vital to implementing fire management policies. Protocols and procedures for the use of prescribed fire and fire suppression response have been developed by DEC's Division of Forest Protection and Fire Management. The chief role of land managers is to offer input on ecological and biological concerns as well as the public notification procedures to be included in prescribed fire plans.

Prescribed burning will only be done through an approved prescribed fire plan prior to ignition. All prescribed fire plans must contain measurable objectives and a predetermined prescription that defines conditions under which a prescribed fire may be ignited to reduce the chance of an escaped fire. Prescribed fire plans will also establish acceptable wind directions to avoid smoke impacts on population centers and travel corridors. Plans will incorporate public notification protocols. Staff members conducting prescribed fires will be required to follow safety protocols. Areas to be treated (burn units) will be delineated and sized to reduce visual impacts.

Waters in the unit which sustain fish populations include the Batten Kill River (H-301), Carters Pond (UH-P75) and numerous headwater streams. The Batten Kill is a coldwater stream stocked with brown trout and managed under statewide fishery regulations for most of the length and under special regulations for the 4 miles from the VT border downstream to the covered bridge at Eagleville including the section along the Batten Kill State Forest. This four mile stretch allows year round catch and release fishing for Trout using only artificial lures. Additional fish found in the Batten Kill include brook trout, smallmouth bass, suckers and various minnow species. Carters Pond is an 18-acre shallow, warm water pond with abundant aquatic vegetation containing largemouth bass, northern pike, brown bullhead, yellow perch and sunfish. Carters Pond is managed under the statewide fishery regulations. The headwater streams throughout the units are too small to stock for angling, but are important for habitat and water quality protection. These headwater streams may also provide important habitat for wild brook trout, and are managed under statewide fishery regulations.

Two accessible duck blinds designed to accommodate hunters with disabilities are planned to be constructed near the dam on Carter's Pond. The duck blinds will accommodate 2-3 individuals and will be accessible by wheelchair. An accessible parking spot will be reserved nearby for users holding a MAPPWD Permit (Motor Vehicle Access for People with Disabilities Permit). Both blinds will be handled on a first come first serve basis.

Marsh platforms and wood duck nesting boxes will also be constructed and installed at Carter's Pond Wildlife Management Area. Nest boxes will be installed at Eldridge Swamp State Forest where appropriate. Volunteer assistance will be welcomed to assist with construction and maintenance of Fish and Wildlife structures such as the duck blinds, marsh platforms and wood duck boxes.

Vernal Pools are a crucial aspect of the Forest Ecosystem. Vernal pools do exist across these state forests and will be protected when planning and performing harvest activities. Vernal pools should have a 100' uncut buffer surrounding the pool and forested corridors should be maintained connecting vernal pools. There may be an opportunity to increase the number of vernal pools in certain state forests through construction of new vernal pools. An assessment of existing vernal pools as well as maintenance of and development needs of pools on these state forests should be conducted with the assistance of the Division of Fish and Wildlife.

Fish and Wildlife

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Manage habitats for endemic wildlife species and public use	1.0	Manage forest stands to achieve a balanced structure of vegetative types and stages by eventually increasing seedling / sapling size class to 8 -10% through annual allowable even-aged cuts.	On Going
		1.1	Work with Division of Fish and Wildlife to assess, develop and maintain small ponds and vernal pools to serve habitat requirements for amphibians.	Within 3 years of Final UMP
		1.2	Establish appropriate warm and cool season species of grasses on 75 acres of State Forest and 60 acres of Carter's Pond WMA which may require planting / multiple mowings annually / fertilization and or application of pesticides.	One Time
		1.3	Maintain and enhance grassland habitats by mowing and or burning.	Every two years
		1.4	Conduct prescribed burns in conjunction with Forest Rangers through an approved fire plan to perpetuate fire dependent communities.	As Needed

		1.5	Protect and enhance rare plant and animal communities	On Going
		1.6	Stock Batten Kill River in accordance with Bureau of Fisheries guidelines and with the assistance of the local fishing clubs through appropriate cooperative agreements.	On Going
		1.7	Monitor and replace as needed, any stream improvement structures located along the Batten Kill river adjacent to Batten Kill and Eldridge Swamp State Forests as funding and initiative are available.	As Needed
		1.8	Work with U.S. Fish and Wildlife Service, The Batten Kill Alliance, Trout Unlimited, Washington County Soil and Water Conservation District, other interested groups and local landowners for construction, maintenance and replacement of in stream habitat structures and bank protection structures.	On Going
		1.9	Removal of invasive species in accordance with DEC Policies.	As Needed
		1.10	Seeding will be used to maintain favorable grassland species across grasslands in this Unit.	As Needed
2	Encourage public use of state lands and volunteer assistance on state lands	2.0	Provide educational information and maps to public to facilitate public use of state lands	On Going
		2.1	Work with local groups to construct or maintain ponds, observation decks, duck blinds, nest boxes, nesting	On Going

			structures etc. through volunteer agreements.	
3	Construction of wildlife related structures.	3.0	Construct duck blind/s at Carter's Pond.	One Time
		3.1	Construct / Install Wood Duck boxes in Carter's Pond.	As Needed
		3.2	Construct / Install marsh nesting platforms in Carter's Pond.	As Needed
4	Maintenance of Wildlife Structures	4.0	Maintain all Fish and Wildlife Structures on Washington County State Lands	As Needed

Water Resources

Water plays a significant role in these state land units. Wetlands, ponds, vernal pools, streams and the Batten Kill River are present within these units and are integral parts of the ecosystem while also serving the needs of many people. The important role forests play in producing high quality fresh water cannot be overstated. Forests serve as nature's water filters and regulate water flow by storing rainfall and releasing it into streams at a more even rate. Water is essential for almost all terrestrial life forms, as well as organisms that spend at least part of their life cycle in water, or are aquatic-based, like some insects and salamanders. The state's waters support an immense variety of organisms which serve as the foundation for the food chain and the core of biodiversity.

Compliance with New York State Freshwater Wetlands Act (ECL Article 24) and the Water Resources Law (ECL Article 15, Title 5) is required by NYS DEC when conducting management activities or construction projects that involve regulated activities within protected wetlands, water bodies, or streams. Timber Harvesting Guidelines which are mandatory for all silvicultural practices on State lands, require specific conservation practices which protect soils and water quality.

Ecoregional Habitat Gaps identified in the Strategic Plan for State Forest Management identify Wooded Wetlands as a gap in the New England / Lower Piedmont ecoregion. Management decisions in the Northern Piedmont UMP area should encourage maintaining, improving and adding to this habitat whenever possible.

Eldridge Swamp, (partially located in Eldridge Swamp State Forest) is a unique ecosystem which was influenced greatly by the glacial history of New York. The U.S. Fish and Wildlife Service is looking into Eldridge Swamp and the adjacent Batten Kill River to determine the possibility of mutual benefits which may be seen through some work in this area.

"Past agricultural and development practices have reduced the physical and ecological function and value of Eldridge Swamp and the Batten Kill. Former practices designed to bring land into

production often involved moving or straightening river channels and eliminating the dendritic and meandering floodplain drainage channels. As a result, many of the flows that supported habitat for fish, waterfowl, and amphibians now less frequently reach Eldridge Swamp and its many channels and associated oxbows. Historically, the frequent seasonal flooding of the swamp from the Batten Kill along with the cooling effect of numerous springs created by the melting of a mile square ice block, helped to maintain the moisture and temperature requirements for white spruce in this unique area (Cook, 1959). Currently, the Batten Kill is confined to a single channel and does not have sufficient access to its floodplain to provide the geomorphic and ecological benefits to Eldridge Swamp” (Naley).

The objective that is being investigated for this area is to “enhance fish and wildlife habitat in Eldridge Swamp by restoring hydrologic connections to the Batten Kill River. Restore flood flows to the oxbows and channels in Eldridge Swamp. Retain and restore as much meander pattern in the river and the swamp as possible to lengthen the linear extent of habitat and dissipate energy during flood flows. By allowing the Batten Kill to escape to its floodplain during flood flows, we will significantly reduce the erosive forces currently degrading the river banks and riparian habitat and will reduce the excessive sedimentation of fish habitat downstream.

During wet years, the rehydrated channels and oxbows can provide ample breeding, rearing and foraging habitat for fish and aquatic-dependent species. During dry years, the pools provide refuge for aquatic species. In addition, revitalization of the oxbows will encourage additional riparian habitat for forest dependent species.

Method: Using Natural Channel Design methodologies, remove blockages between the Batten Kill and the floodplain. Redirect flood flows into Eldridge Swamp and oxbows and allow flows to reenter the Batten Kill further downstream where the river begins to turn north. By renewing floodwater access to old oxbows in Eldridge Swamp and enabling the river to more naturally expand and flow through the swamp before returning to the main channel of the Batten Kill, we will restore more natural water regimes in the river and swamp. By diverting a portion of the flood flows into the old oxbows and swamp, we will reduce the erosive forces on the right bank of the Batten Kill where the river sharply swings south. In addition, to ensure channel stability, Natural Channel Design structures will be installed at the stress points on the right bank in order to maintain the river meander. Eldridge Swamp has a long history of oxbow and wetland inundation and enhancing the swamp’s connection with the river will be beneficial in terms of channel stability and fish and wildlife habitat.

The fluvial geomorphic assessments, designs, and project implementation will be conducted through a partnership of Federal, State, and private organizations including but not limited to: Batten Kill Watershed Alliance of New York and Vermont, U.S. Fish and Wildlife Service, NY Department of Environmental Conservation, Washington County Soil and Water Conservation District, and the Clearwater Chapter of Trout Unlimited. The work will be conducted in coordination with ongoing Batten Kill habitat restoration efforts for eastern brook trout” (Naley).

The Northern Piedmont Unit Management Plan does not cover the SEQR considerations that this potential project would involve in respect to Eldridge Swamp State Forest. When funding is secured for this potential project the specific plan and details of the project will be covered in a separate document.

Water

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Protect water and wetland resources	1.0	Utilize Best Management Practices (BMP's) for water quality on timber sales, gas well site construction, etc.	On Going
		1.1	Control erosion through proper road maintenance	On Going
		1.2	Comply with the Water Resources Law and Freshwater Wetlands Acts.	On Going
2	Work with the United States Fish and Wildlife Service or associated groups to assist in the planning and use of state forest land to reduce the erosive forces currently degrading the Batten Kill river banks and riparian habitat and reduce the excessive sedimentation of fish habitat downstream while enhancing fish and wildlife habitat in Eldridge Swamp and restoring meandering pattern in river.	2.0	Work with USFWS and associated Groups to remove blockages between Batten Kill and Eldridge Swamp flood plain to allow flood waters to enter Eldridge Swamp	One Time
		2.1	Work with USFWS and associated Groups to allow flows to re-enter the Batten Kill further downstream where river begins to turn north.	One Time
		2.2	Work with USFWS and associated Groups to install natural channel design structures at stress points on river bank in order to maintain the river meander.	One Time
		2.3	Work with USFWS and associated Groups to maintain Batten Kill River Natural design structures at Eldridge Swamp and Batten Kill State Forests.	As Needed

Land Acquisition

Acquisitions in fee and conservation easements, from willing sellers, have been utilized by New York State to conserve land for more than a century. These lands have created the State Forest Preserve, reforested marginal farmland, created state parks, and have protected sensitive natural habitats for threatened and endangered species.

New York's State Forests, to be managed separately from the State's Forest Preserve, were established by The State Reforestation Law of 1929 and the Hewitt Amendment of 1931. Today, these laws are authorized under Article 9, Title 5 of the Environmental Conservation Law (ECL). Both laws set forth legislation that authorized the former Conservation Department to acquire land by gift or purchase for reforestation areas. Land Acquisition Bond Issues in 1960, 1962, 1970, 1972, 1986 and 1996 as well as today's Open Space Conservation program funded by the Environmental Protection Fund have strengthened the public commitment to acquire, protect and preserve these valuable areas.

New York State has been a leader in recognizing the value of open, undeveloped land. In November 2009 Governor Patterson issued an updated plan prepared by DEC and the Office of Parks Recreation and Historical Preservation, entitled, "**New York State Open Space Conservation Plan**".

The Open Space Plan of 2002, 2006 and 2009 characterizes the need for perpetuation, in a grand sense, of open space and natural landscapes as, "The quality and character of the lives of the people of New York depend upon the quality and character of the land on which we live. Our mountains, lakes, rivers, forests and coastline, our natural landscapes, urban parks and historic resources shape the way we spend our leisure time, affect the long term strength of our economy, determine whether we have clean air and water, support the web of living things of which we are a part, and effect how we think about ourselves and relate to other New Yorkers."

In order for land to be acquired for State Forest protection, as described in the Open Space Conservation Plan, a proposed parcel will be evaluated to determine: a) the impact of the location of the parcel on its ability to achieve the project's objective; b) the compatibility of the parcel with other state environmental plans and other regional and/or local environmental plans; c) the multiple benefits afforded by the proposed parcel; d) the availability of alternative or additional funding for purchase of the parcel; e) post acquisition management needs and the availability of post acquisition management support; f) the extent to which a parcel encompasses agricultural lands; and g) the fiscal and economic benefits and burdens resulting from acquiring the proposed parcel, including those on state agencies, the local government and the local economy (2009 New York State Open Space Conservation Plan).

Certain parcels will be considered for purchase or conservation easement if they contain species designated as rare, endangered or threatened in New York State. Connectivity between private and public forest patches across the landscape is also important and will become increasingly necessary for biodiversity and ecosystem health as time progresses. Protection of wetlands; improved access; or consolidation of public ownership by eliminating inholdings is also criteria for acquisition. It should be clearly understood that NYS DEC intends to acquire these parcels only from willing sellers as funding becomes available, in accordance with the NYSOSP.

Land Acquisition

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Provide improved access to the unit.	1.0	Identify land acquisition needs.	On Going
		1.1	Acquire desired properties from willing sellers as funding permits.	On Going
2	Consolidate public ownership by eliminating in holdings	2.0	Identify land acquisition needs.	On Going
		2.1	Acquire desired properties from willing sellers as funding permits.	On Going
3	Enhance recreational opportunity	3.0	Identify land acquisition needs.	On Going
		3.1	Acquire desired properties from willing sellers as funding permits.	On Going
4	Protect significant ecological areas	4.0	Identify land acquisition needs.	On Going
		4.1	Acquire desired properties from willing sellers as funding permits.	On Going
5	Provide for connectivity between private and public forest lands where possible through acquisition or easements	5.0	Identify land acquisition needs.	On Going
		5.1	Acquire desired properties from willing sellers or purchase easements as funding permits.	On Going

Aesthetic Resources

The State lands in this unit provide many scenic opportunities. Viewsheds of the surrounding area as seen from within the unit and the aesthetic appeal prevalent throughout all of these State lands provide the public with many opportunities to take in their surroundings in an

enjoyable way. Actions carried out on these State lands will take into account the aesthetic effect they will have. Management actions will strive to provide the public with a pleasant experience and also provide educational opportunities to explain the visual impacts of some management decisions.

Aesthetics

Management Objectives		Mgt. Action	Management Actions	Frequency of Action
1	Create and maintain significant scenic vistas throughout the unit.	1.0	Maintain vista located at the end of the Folded Rock Trail, Batten Kill State Forest.	As Needed
		1.1	Maintain vista located at the accessible viewing platform on Carters Pond.	As Needed
		1.2	Evaluate potential for and if favorable, create vista along proposed multiple use trail, Mt. Tom State Forest.	Upon construction of multiple use trail
		1.3	Construct additional vistas at favorable locations where compatible with management goals	On Going
2	Install and maintain educational kiosks at appropriate locations on State lands to provide information and also a centralized location for department signs.	2.0	Create and install kiosks or informational signs at locations of silvicultural treatments which may elicit a reactionary negative response.	As Needed
3	Use natural materials and colors where possible for infrastructure needs.	2.1	Use Kiosks at Trailheads and parking lots as a way to describe the resource in that area and also provide a centralized location on which to post department signs.	As Needed
		3.0	Use standard Department brown paint or stain on wooden structures such as kiosks, signs, bollards, bridges etc. Yellow lettering on signs.	As Needed

4	Keep aesthetics in mind when locating new roads, parking lots or other infrastructure	3.1	Use large rocks, or logs when possible in place of gates for administrative areas that are closed to motor vehicles for long periods of time such as old skid trails.	When Appropriate
		3.2	Use bright colors (orange / yellow) on gates, cautionary signs where it is important to quickly grab attention for safety reasons.	As Needed
		4.0	When creating forest access roads parking lots or other facilities incorporate scenic vistas / experiences and take into account the scenic quality these facilities will exhibit from the surrounding area.	During Planning
5	Consider visual effects of timber management activities	4.1	Site trails and campsites in a way that keep them interesting for the user, yet shield the users from one another through use of curvy trails or vegetative buffers.	During Planning
		5.0	Comply with Aesthetic standards located in the SPSFM.	On Going

Funding

Currently NYS DEC's Bureau of State Land Management and Bureau of Wildlife must prioritize spending within available (currently limited) budgets.

Funding, when available, is primarily derived from:

-Capital construction account (State General Fund monies)

-Rehabilitation & improvement account (State General Fund monies)

-Stewardship – Special Revenue Other (SRO) account. State forests only. Note: The primary source of revenue for the SRO account is from commercial sales of forest products.

-Services in lieu of payment during commercial sales of forest products. (These services are limited to the specific location and certain activities, where the sale occurs.)

-Environmental Protection Fund (EPF). This account is primarily funded from real estate transfer tax and other appropriations by the legislature. Appropriations from this fund may be used for a wide variety of projects including habitat enhancement for plants and animals, recreational facilities and forestry improvements such as pre-commercial thinning, artificial regeneration, and control of invasive species.

-Conservation Fund. Wildlife Management Areas only. A state fund consisting primarily of income from the sale of sporting licenses, fines from penalties from fish and wildlife law violations, sale of products off lands administered by the Division of Fish, Wildlife and Marine Resources, and Return a Gift to Wildlife donations. Revenues attributable to the sale of oil and gas leases from Wildlife Management Areas are deposited into the Conservation Fund.

-Wildlife Restoration Program Funds. These are federal funds commonly referred to as Pittman-Robertson Funds. This is a federal program established from money received from excise taxes on the sale of sporting guns and ammunition. Use of land purchased, or activities funded, are federally regulated to certain activities.

Regional allocations from these accounts must be shared by all NYS DEC lands within the region. There is no specific budget established to manage an individual site. Funding is distributed based on priorities for all areas within the region. Tasks listed in the work schedule in this plan are contingent upon available funding and commitments associated with higher priority projects within the region.

Cooperative partnerships using volunteer agreements with private conservations organizations or other interested parties can be used to complete projects on Washington county state lands. These partnerships are a valuable supplemental source for providing needed services.

PUBLIC INVOLVEMENT

The Washington County Unit Management Plan has been underway for a very long time. Since at least 1996 three meetings have taken place and information has been slowly collected in support of the management plan for this area including public comments regarding the management of this unit. During the last few years more state forest land was acquired and has since been added to the unit. Meetings in preparation for this Unit Management Plan have been held in 1996, 2001, and 2004. Public comments have been received at these meetings as well as through letters to the department.

MANAGEMENT ACTIONS SUMMARY

Priority:

C – Critical, Necessary to ensure public health and safety; Necessary to maintain facilities in order to avoid loss of prior investment of time or money in facility, Necessary to avoid / correct environmental degradation, Mandated by legislation

H – High, Necessary for public use, and / or to improve habitat or other natural resources.

L – Low, Important for the enhancement of public use, habitats or other natural resources.

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Access	1.0	Survey site(s)	L	As Needed	10 Work Days	
	1.1	Receive public comments	C	On Going	10 Work Days	
	2.0	Revise / amend UMP as required to accommodate the construction of additional access.	L	Every 10 years or as needed		\$15-\$30 per linear foot of road.
	2.1	Create access to water edge for people with disabilities at Batten Kill State Forest, Batten Kill River Access.	H	One Time	\$4,000	
	3.0	Inspect Culverts	C	Annually	10 Work Days	
	3.1	Replace Culverts	C	As Needed	\$20,000	
	3.2	Public Access Roads – Grade and Maintain	H	Bi-Annually	35 Work Days or \$10,000	Rake Annually \$1,000/yr

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Access	3.3	Administrative Access Roads – grade and maintain surface	H	Every 5 years	10 Work Days	
	3.4	Inspect Ditches	H	Annually	20 Work Days	
	3.5	Clean Ditches	H	Annually	40 Work Days	
	3.6	Mow Roads Right of Way	H	Annually	30 Work Days	Including paths on south side Eldridge S.F.
	3.7	Inspect Shaker Hollow Truck Trail Bridge	H	Annually	5 Work Days	Replace when necessary
	4.0	Determine need for additional parking	L	On Going	3 Work Days	
	4.1	Revise / amend UMP as required to accommodate the construction of additional parking lots	L	Every 10 years or as needs are identified	\$5,000 or more per lot	
	4.2	Construct parking lot at south end of Chestnut Woods State Forest	H	One Time	\$5,000	Construction then maintenance
	4.3	Improve parking at Goose Egg State Forest	L	One time	\$3,000	Construction then maintenance
	4.4	Improve parking lots Eldridge Swamp State Forest both sides Route 313	H	One time	\$5,000	Define lot, surface as needed, sign, maintenance
	4.5	Improve parking lot at seed orchard Mt. Tom State Forest	H	One time	\$5,000	Improve drainage, ditch / grade driveway as needed
	4.6	Construct 20-Car parking lot south side Eagleville Rd. Batten Kill State Forest	H	One time	\$15,000	Delineate with boulders, construct driveway and lot, sign, maintenance
4.7	Harden and sign 1 parking spot at existing Batten Kill River Access along Eagleville Rd. for people with disabilities. Batten Kill State Forest	H	One time	\$3,000	Construction then maintenance	

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Access	5.0	Litter removal	L	As Needed	30 Work Days	
	5.1	Maintain parking lot delineation	L	As Needed	\$2,000	
	5.2	Mowing	H	Annually	20 Work Days	
	5.3	Maintain parking lot signs / kiosks	H	Annually	\$3,000	
	5.4	Spread gravel / grade	H	As Needed	\$20,000	
	5.5	Resurface Carter's Pond parking lot with gravel / grade. (County Route 49 parking lots)	H	One Time	\$7,000	
	5.6	Install water control devices Carter's Pond Route 49 northern parking lot	H	One Time	\$1,000	
	6.0	Paint 6 miles boundary	H	Annually	45 Work Days	
	6.1	Locate Carter Pond WMA boundary	H	As Needed	6 Work Days	
Recreation	1.0	Receive public input	C	On Going	30 Work Days	
	1.1	Monitor use patterns	C	On Going	20 Work Days	
	2.0	Identify resources and / or volunteer groups to form additional partnerships	L	On Going	10 Work Days	
	2.1	Construct multiple use trail on Mt. Tom State Forest. Work with volunteers when identified.	H	On Going	15 Work Days	
	2.2	Construct foot bridge / maintain Folded Rock Trail. Work with volunteers when identified.	H	On Going	10 Work Days \$1,500	
	2.3	Maintain nature trail / observation tower Carters Pond Wildlife Management Area. Work with volunteers when identified.	H	On Going		Unable to predict costs

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Recreation	2.4	Provide resources / technical support to assist volunteer groups maintaining existing recreational facilities.	L	As Needed		Unable to predict costs
	2.5	Provide resources or utilize opportunities as needed to maintain and enhance existing trails.	H	On Going		Unable to predict costs
	3.0	In house review of proposed projects	L	On Going	10 Work Days	
	4.0	Maintain and improve access for people with disabilities.	C	On Going		Unable to predict costs
	4.1	Construct gates / barriers to discourage motorized use of skid trails / administrative roads / areas.	C	As Needed		Unable to predict costs
	4.2	Create a shorter loop trail at Carter's Pond and provide UTAP assessment.	H	One Time	\$3,000 15 Work Days	
	4.3	Build a Foot Bridge across Whittaker Brook south of Carter's Pond connecting Nature Trail to lands near Ferguson Rd.	H	One Time	\$5,000 30 Work Days	
	4.4	Sign, open and maintain MAPPWD routes at Eldridge Swamp State Forest. Install gates when opening route.	H	One Time / maintenance as needed	\$5,000 26 Work Days	Initial signing, gate installation, yearly mowing, maintenance
	5.0	Maintain trails, access points, bridges, boardwalks and observation tower.	H	As Needed		Unable to predict costs
	5.1	Reroute ¼ mile section of Folded Rock Trail Batten Kill State Forest	H	One time	5 Work Days	
	6.0	Provide brochures and maps for users	H	As Needed	20 Work Days	
	6.1	Provide kiosks at trailheads / areas of interest including Folded Rock Trailhead, Seed Orchard / potential trailhead, Batten Kill River access, Eldridge Swamp State Forest parking lot.	L	One time	\$6,000	Construction then maintenance as needed.

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Recreation	7.0	Create and maintain scenic vistas	L	As Needed	10 Work Days	
	7.1	Remove Litter from State Land	L	As Needed	10 Work Days	
	7.2	Encourage assistance from volunteers to remove litter	H	On Going	10 Work Days	
	8.0	Encourage hunting, trapping, and fishing in accordance with state regulations	L	On Going	10 Work Days	
Timber & Vegetation	1.0	Prioritize harvest activities in stands which would increase the number of acres categorized in the 0-5 inch size class to reach a suitable balance of stand size structure across state forests.	H	On Going	Produces Revenue	
	1.1	Follow department policy regarding retention practices of snags, cavity trees, recruitment trees, reserve trees, hardwood / conifer inclusions, coarse woody debris and fine woody material.	H	On Going		Practices employed during harvest / thinning operations
	1.2	Increase component of young vegetational stage in Carters Pond Wildlife Management Area through a series of small group selection cuts.	H	On Going		
	1.3	Increase softwood component of Carters Pond Wildlife Management Area forest stands through planting or natural regeneration cuts	H	On Going		
	2.0	Average annual cut of 83 acres for uneven aged stands	H	Annually	Produces Revenue	
	2.1	Average annual cut of 70 acres for even aged stands	H	Annually	Produces Revenue	

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Timber & Vegetation	2.2	Reduce number of plantations by 26% from 243 acres to 180 acres	L	On Going		Focusing on periphery of core plantation areas.
	3.0	Mow 33 acres of old field area on Batten Kill State Forest to maintain brush or grassland condition	H	Every two years	10 Work Days or \$7,500	Costs apply to one mowing. Five mowings will be needed over Ten year period.
	3.1	Mow / burn 42 acres of old field areas on Eldridge Swamp State Forest to maintain brush or grassland condition	H	Every two years	14 Work Days or \$10,500	Costs apply to one mowing. Five mowings will be needed over Ten year period.
	3.2	Mow / burn 60 acres of old field areas on Carter's Pond Wildlife Management Area to improve grassland condition.	H	Every two years	20 Work Days or \$14,000	Costs apply to one mowing. Five mowings will be needed over Ten year period.
	4.0	Inventory Washington #1,#2,#3,#4 within 2 years of completion of final UMP	H	Every 10 years	50 Work Days	
	4.1	Maintain current forest inventory in all units	H	Every 10 years	65 Work Days	For entire unit
	5.0	Survey, inventory and remove invasive herbaceous and woody materials using pesticides, fire, and manual efforts in accordance with state law and Department Policy	C	As Needed	120 Work Days	For surveying units only. Removal if needed would require additional time / funding.
Seed production	1.0	Maintain administrative access to Seed Orchard	H	As Needed		See access section
	1.1	Mowing	H	Annually	\$8,000	
	1.2	Pruning	L	As Needed		Work done by nursery

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Seed production	1.3	Topping	L	As Needed		Work done by nursery
	1.4	Removal of debris	L	As Needed		Work done by nursery
	1.5	Fertilization	L	As Needed		Work done by nursery
	1.6	Pesticide application	L	As Needed		Work done by nursery
	1.7	Install Informational Kiosk at seed orchard parking log	L	One Time		See Recreation section
Utility Lines	1.0	Investigate the history of the Utility corridor across Mt. Tom State Forest and tree cutting for FAA tower requirements	H	On Going		Unable to predict costs
	1.1	Secure proper compensation for the State / or establish a legal basis for continued use of corridor and tree cutting requirements.	H	On Going		Unable to predict costs
Research	1.0	Use the TRP process to work with organizations wishing to conduct research activities.	H	On Going	30 Work Days	
Gravel	1.0	Maintain access road to gravel pit in Chestnut Woods State Forest	H	As Needed	4 Work Days or \$1,200	
Fish and Wildlife	1.0	Manage forest stands to achieve a balanced structure of vegetative types and stages	H	On Going		See timber & vegetation section
	1.1	Assessment, development and maintenance of small ponds and vernal pools to serve habitat requirements for amphibians in conjunction with Division of Fish and Wildlife	H	As Needed	10 Work Days	Developed through timber sale
	1.2	Establish appropriate warm and cool season species of grasses on 75 acres of State Forest and 60 acres of Carter's Pond WMA which may require planting / multiple mowing annually, fertilization and or application of pesticides	H	One Time	Up to 44 Work Days or \$32,000	Potential additional costs to establish favorable grass species.

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Fish and Wildlife	1.3	Maintain and enhance grassland habitats by mowing and or burning	H	Every two years		See timber & vegetation section
	1.4	Conduct prescribed burns in conjunction with Forest Rangers through an approved fire plan to perpetuate fire dependent communities	L	As Needed		Unable to predict costs
	1.5	Protect and enhance rare plant and animal communities	C	On Going		Unable to predict costs
	1.6	Stock Batten Kill River in accordance with Bureau of Fisheries guidelines and with the assistance of the local fishing clubs through appropriate cooperative agreements.	H	On Going		
	1.7	Monitor and replace as needed, any stream improvement structures located along the Batten Kill River adjacent to Batten Kill and Eldridge Swamp State Forests as funding and initiative are available.	H	On Going		
	1.8	Work with U.S. Fish and Wildlife Service, the Batten Kill Alliance, Trout Unlimited, Washington County Soil and Water Conservation District, other interested groups and local landowners for construction, maintenance and replacement of in-stream habitat structures and bank protection structures.	H	On Going		
	1.9	Removal of invasive species in accordance with DEC Policies	C	As Needed		Unable to predict costs
	1.10	Seeding will be used to maintain favorable grassland species across grasslands in this Unit	H	As Needed		Unable to predict costs
	2.0	Provide educational information and maps to public and facilitate public use of state lands	H	On Going		See Recreation section

Management Action			Priority	Frequency of action	Est. 10 year Cost	Comments
Fish and Wildlife	2.1	Work with local groups to construct or maintain ponds, observation decks, nest boxes, nesting structures etc. through volunteer agreements.	H	On Going	20 Work Days	
	3.0	Construct accessible duck blind/s at Carter's Pond	L	One Time	\$10,000	Utilize volunteers when possible
	3.1	Construct / Install Wood Duck boxes in Carter's Pond / Eldridge Swamp State Forest	L	On Going	\$1,000	Utilize volunteers when possible
	3.2	Construct / Install marsh nesting platforms in Carter's Pond	L	One Time	\$1,000	Utilize volunteers when possible
	4.0	Maintain all Fish and Wildlife structures on Washington County State Lands	H	As Needed	40 Work Days	Utilize volunteers when possible
Water Resources	1.0	Utilize Best Management Practices (BMP's) for water quality on timber sales, trail construction etc.	C	On Going		
	1.1	Control erosion through proper road maintenance	C	On Going		See Access section
	1.2	Comply with the Water Resources Law and Freshwater Wetlands Acts.	C	On Going		
	2.0	Work with USFWS and associated groups to remove blockages between Batten Kill River and Eldridge Swamp flood plain to allow flood waters to enter Eldridge Swamp	H	One Time		Through volunteer agreements
	2.1	Work with USFWS and associated groups to allow flows to re-enter the Batten Kill River further downstream where river begins to turn north.	H	One Time		Through volunteer agreements
	2.2	Work with USFWS and associated groups to install natural channel design structures at stress points on river bank in order to maintain the river meander	H	As Needed		Through volunteer agreements

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Water Resources	2.3	Work with USFWS and associated groups to maintain Batten Kill River natural design structures at Eldridge Swamp and Batten Kill State Forests.	H	As Needed		Through volunteer agreements
Land Acquisition	1.0	Identify land acquisition needs. (Access)	L	On Going		Unable to predict costs
	1.1	Acquire desired properties from willing sellers as funding permits	L	On Going		Unable to predict costs
	2.0	Identify land acquisition needs. (Eliminate inholdings)	L	On Going		Unable to predict costs
	2.1	Acquire desired properties from willing sellers as funding permits	L	On Going		Unable to predict costs
	3.0	Identify land acquisition needs. (recreation)	L	On Going		Unable to predict costs
	3.1	Acquire desired properties from willing sellers as funding permits	L	On Going		Unable to predict costs
	4.0	Identify land acquisition needs. (Ecological)	L	On Going		Unable to predict costs
	4.1	Acquire desired properties from willing sellers as funding permits	L	On Going		Unable to predict costs
	5.0	Identify land acquisition needs. (forest connectivity)	L	On Going		Unable to predict costs
	5.1	Acquire desired properties from willing sellers or purchase easements as funding permits	L	On Going		Unable to predict costs
Aesthetics	1.0	Maintain vista located at the end of the Folded Rock Trail, Batten Kill State Forest	L	As Needed	4 Work Days	
	1.1	Maintain vista located at the accessible viewing platform on Carters Pond	L	As Needed	4 Work Days	
	1.2	Evaluate potential for and if favorable, create vista along proposed multiple use trail, Mt. Tom State Forest.	L	One Time	4 Work Days	Evaluate, Construct and maintain

Management Action		Priority	Frequency of action	Est. 10 year Cost	Comments	
Aesthetics	1.3	Construct additional vistas at favorable locations where compatible with management goals.	L	On Going		Unable to predict costs
	2.0	Create and install kiosks or informational signs at locations of silvicultural treatments which may elicit a reactionary negative response.	H	As Needed	\$1,000	
	2.1	Use kiosks at trailheads and parking lots as a way to describe the resource in that area and also provide a centralized location on which to post department signs.	L	One Time		See Recreation section
	3.0	Use standard Department brown paint or stain on wooden structures such as kiosks, signs, bollards, bridges etc. Yellow lettering on signs.	H	On Going		
	3.1	Use large rocks, or logs when possible in place of gates for administrative and other areas that are closed to motor vehicles	H	As Needed		Work done in conjunction with timber harvest.
	3.2	Use bright colors such as orange or yellow on gates, cautionary signs or other signs where it is important to quickly grab attention for safety reasons.	C	As Needed		
	4.0	When creating forest access roads, parking lots or other facilities, incorporate scenic vistas where appropriate and take into account the visual impact the facility will impart on the surrounding area.	H	On Going		
	4.1	Site trails and campsites in a way that keep them interesting for the user, yet shield the users from one another through use of curvy trails or vegetative buffers.	H	On Going		
	5.0	Comply with aesthetic standards located in the SPSFM	H	On Going		

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APPENDICES

- Appendix I – Mammals, Reptiles and Amphibians
- Appendix II – Breeding Bird Atlas
- Appendix III – Game and Furbearer Harvest Information
- Appendix IV - Forest Stand Information
- Appendix V – Tax Data
- Appendix VI – Mined Land Reclamation Standards
- Appendix VII – Conservation Seed Mixtures
- Appendix VIII – Inventory of Facilities
- Appendix IX – Summary of Public Comments
- Appendix X – Glossary of Terms
- Appendix XI - Maps

Appendix I- Species Occurrence Lists, Washington County UMP

Occurrence and Protective Status of Wildlife in the Vicinity of the UMP

The protective status of listed species is based on Federal and State regulations. Following column entries for common and scientific names, a “protective status” category of two entries for Federal status and for New York status appear. In Appendix II, the breeding class is also listed.

The following definitions apply to the abbreviations and terms used as defined in The Checklist of Amphibians, Reptiles, Birds and Mammals of New York State, Including Their Protective Status.

Federal Definitions

- Thr- Threatened Species, determined by the U.S. Department of the Interior as likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range, as defined in the Endangered Species Act of 1973, and as amended. All such species are fully protected.
- C123- Indicates species listed under the Convention on International Trade in Endangered Species (CITES) whose purpose is to protect certain species of flora and fauna against over-exploitation through international trade. CITES lists species in three categories (appendices) of protective status. Appendix 1 is for species threatened with extinction. Appendix 2 are those not currently endangered which may become so if unrestricted trade occurs. Appendix 3 is for species identified by a country as needing protection. The notations that designate these trade protection categories are C1, C2, and C3 for the three respective appendices. The listing herein is based upon the September 30, 1991 supplement.
- MBTA - Migratory Bird Treaty Act of 1918, and as amended. The MBTA, including amendments, implements conventions between the United States, Great Britain (for Canada, etc.), Mexico and Japan for the protection of migratory birds.
- UN- “Unprotected” under the law.

State Definitions

- End- “Endangered Species” determined by the New York State Department of Environmental Conservation (DEC) to be in imminent danger of extinction or extirpation in New York State or Federally listed as endangered. All such species are fully protected under New York State’s Environmental Conservation Law.
- Thr- “Threatened Species” determined by the DEC as likely to become an endangered species within the foreseeable future in New York State, or federally listed as threatened. All such species are fully protected under New York State’s Environmental Conservation Law.
- SC - Special Concern Species are those native species which are not yet recognized as endangered or threatened but for which documented evidence exists relating

to their continued welfare in New York State. The Special Concern category, while existing in DEC rules and regulations, does not in itself provide protection. Therefore, a species listed as Special Concern is accompanied by a second notation indicating whether or not such species is otherwise protected.

GS, GN- Game Species are defined as “big game”, “small game”, or “game bird”, in ECL 11-0103. **GS** indicates that there are seasons set of the species when they may be legally hunted. **GN** indicates that, while classified under the law as a game species, there are no seasons set and the species may not be hunted or taken at any time in NY.

PB- Protected Birds are defined in ECL 11-0103 as all wild birds except those named as unprotected. Some of these birds, such as waterfowl and gallinaceous birds, are also listed as game species with seasons set, while others may not be taken at any time.

UN- “Unprotected” means that the species may be taken at any time without limit; however, a license to take may be required.

Breeding Class

PO - Possible Breeder

PR - Probable Breeder

CO - Confirmed Breeder

Identification Code

YR-Year Round

B- Breeding

W- Winter

Mammals

Common Name	Scientific Name	Protection Status	
		Federal	State
Moose	<i>Alces alces</i>	UN	GN
Shorttail Shrew	<i>Blarina brevicauda</i>	UN	UN
Coyote	<i>Canis latrans</i>	UN	GS
Beaver	<i>Castor canadensis</i>	UN	GS
Boreal Redback Vole	<i>Clethrionomys gapperi</i>	UN	UN
Star-nosed Mole	<i>Condylura cristata</i>	UN	UN
Least Shrew	<i>Cryptotis Parva</i>	UN	UN
Opossum	<i>Didelphis virginiana</i>	UN	GS
Big Brown Bat	<i>Eptesicus fuscus</i>	UN	UN
Porcupine	<i>Erethizon dorsatum</i>	UN	UN
Northern Flying Squirrel	<i>Glaucomys sabrinus</i>	UN	UN
Southern Flying Squirrel	<i>Glaucomys volans</i>	UN	UN
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	UN	UN
Red Bat	<i>Lasiurus borealis</i>	UN	UN
Hoary Bat	<i>Lasiurus cinereus</i>	UN	UN
Snowshoe Hare	<i>Lepus americanus</i>	UN	GS
European Hare	<i>Lepus europaeus</i>	UN	UN
River Otter	<i>Lontra canadensis</i>	UN	GS
Bobcat	<i>Lynx rufus</i>	UN	GS
Woodchuck	<i>Marmota monax</i>	UN	UN
Marten	<i>Martes americana</i>	UN	GS
Fisher	<i>Martes pennanti</i>	UN	GS
Striped Skunk	<i>Mephitis mephitis</i>	UN	GS

Rock Vole	<i>Microtus chrotorrhinus</i>	UN	UN
Meadow Vole	<i>Microtus pennsylvanicus</i>	UN	UN
Pine Vole	<i>Microtus pinetorum</i>	UN	UN
House Mouse	<i>Mus musculus</i>	UN	UN
Shorttail Weasel	<i>Mustela erminea</i>	UN	GS
Longtail Weasel	<i>Mustela frenata</i>	UN	GS
Keen Myotis	<i>Myotis keeni</i>	UN	UN
Mink	<i>Mustela vison</i>	UN	GS
Small-footed Myotis	<i>Myotis leibii</i>	UN	SC
Little Brown Myotis	<i>Myotis lucifugus</i>	UN	UN
Northern Myotis	<i>Myotis septentrionalis</i>	UN	UN
Indiana Myotis	<i>Myotis sodalis</i>	E	E
Woodland Jumping Mouse	<i>Napaeozapus insignis</i>	UN	UN
Whitetail Deer	<i>Odocoileus virginianus</i>	UN	GS
Muskrat	<i>Ondatra zibethicus</i>	UN	GS
Hairytail Mole	<i>Parascalopes breweri</i>	UN	UN
White Footed Mouse	<i>Peromyscus leucopus</i>	UN	UN
Deer Mouse	<i>Peromyscus maniculatus</i>	UN	UN
Eastern Pipistrel	<i>Pipistrellus subflavus</i>	UN	UN
Racoon	<i>Procyon lotor</i>	UN	GS
Norway Rat	<i>Rattus norvegicus</i>	UN	UN
Black Rat	<i>Rattus rattus</i>	UN	UN
Eastern Mole	<i>Scalpous aquaticus</i>	UN	UN
Eastern Gray Squirrel	<i>Sciurus carolinensis</i>	UN	GS
Fox Squirrel	<i>Sciurus niger</i>	UN	GS
Masked Shrew	<i>Sorex cinereus</i>	UN	UN
Longtail Shrew	<i>Sorex dispar</i>	UN	UN

Smokey Shrew	<i>Sorex fumeus</i>	UN	UN
Pygmy Shrew	<i>Sorex hoyi</i>	UN	UN
Northern Water Shrew	<i>Sorex palustris</i>	UN	UN
Eastern Conttaintail	<i>Sylvilagus floridanus</i>	UN	GS
New England Cottontail	<i>Sylvilagus transitionalis</i>	UN	SC
Southern Bog Lemming	<i>Synaptomys cooperi</i>	UN	UN
Eastern Chipmunk	<i>Tamias striatus</i>	UN	UN
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	UN	UN
Gray Fox	<i>Urocyon cinereoargenteus</i>	UN	GS
Black Bear	<i>Ursus americanus</i>	UN	GS
Red Fox	<i>Vulpes vulpes</i>	UN	GS
Meadow Jumping Mouse	<i>Zapus hudsonius</i>	UN	UN

Source: Adapted from Peterson's Guide to North American Mammals

Reptiles and Amphibians

Common Name	Scientific Name	Protection Status	
		Federal	State
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	UN	SC
Blue-Spotted Salamander	<i>Ambystoma laterale</i>	UN	SC
Spotted Salamander	<i>Ambystoma maculatum</i>	UN	GN
Eastern American Toad	<i>Bufo americanus</i>	UN	GS
Common Snapping Turtle	<i>Chelydra serpentina</i>	UN	GS
Painted Turtle	<i>Chrysemys picta</i>	UN	GN
Eastern Racer	<i>Coluber constrictor</i>	UN	GN
Northern Ducky Salamander	<i>Desmognathus fuscus</i>	UN	GN
Northern Ringneck Snake	<i>Diadophis punctatus</i>	UN	GN
Eastern Ratsnake	<i>Elaphe alleganiensis</i>	UN	GN
Northern Two-Lined Salamander	<i>Eurycea bislineata</i>	UN	GN
Wood Turtle	<i>Glyptemys insculpta</i>	UN	SC
Northern Spring Salamander	<i>Gyrinophilus porphyriticus</i>	UN	GN
Gray Treefrog	<i>Hyla versicolor</i>	UN	GS
Eastern Milk Snake	<i>Lampropeltis triangulum</i>	UN	GN
Smooth Greensnake	<i>Liochlorophis vernalis</i>	UN	GN
Northern Water Snake	<i>Nerodia sipedon</i>	UN	GN
Red-Spotted Newt	<i>Notophthalmus viridescens</i>	UN	GN
Northern Redback Salamander	<i>Plethodon cinereus</i>	UN	GN
Northern Spring Peeper	<i>Pseudacris crucifer</i>	UN	GS
Bullfrog	<i>Rana catesbeiana</i>	UN	GS
Green Frog	<i>Rana clamitans</i>	UN	GS
Pickerel Frog	<i>Rana palustris</i>	UN	GS

Northern Leopard Frog	<i>Rana pipiens</i>	UN	GS
Wood Frog	<i>Rana sylvatica</i>	UN	GS
Stinkpot Turtle	<i>Sternotherus odoratum</i>	UN	GN
Northern Brown Snake	<i>Storeria dekayi</i>	UN	GN
Northern Redbelly Snake	<i>Storeria occipitomaculata</i>	UN	GN
Eastern Ribbonsnake	<i>Thamnophis sauritus</i>	UN	GN
Common Garter Snake	<i>Thamnophis sirtalis</i>	UN	GN

Source: Adapted from Herp atlas project and Reptiles and Amphibians of NY.

Appendix II- Breeding Species of Birds in the Vicinity of the UMP

Breeding Status	Common Name	Scientific Name	ID Code	NYS Protection Status
CO	Cooper's Hawk	<i>Accipiter cooperii</i>	YR	PB-SC
PO	Northern Goshawk	<i>Accipiter gentilis</i>	YR	PB-SC
PR	Sharp-Shinned Hawk	<i>Accipiter striatus</i>	YR	PB-SC
PR	Spotted Sandpiper	<i>Actitis macularia</i>	B	PB-GN
NR	Saw-Whet Owl	<i>Aegolius acadicus</i>	YR	PB
CO	Red Winged Blackbird	<i>Agelaius phoeniceus</i>	B	PB
CO	Wood Duck	<i>Aix sponsa</i>	B	PB-GS
PR	Henslow's Sparrow	<i>Ammodramus henslowii</i>	B	PB-T
CO	Grasshopper Sparrow	<i>Ammodramus savannarum</i>	B	PB-SC
PO	Blue-winged Teal	<i>Anas discors</i>	B	PB-GS
CO	Mallard	<i>Anas platyrhynchos</i>	YR	PB-GS
PO	American Black Duck	<i>Anas rubripes</i>	YR	PB-GS
CO	Ruby-Throated Hummingbird	<i>Archilochus colubris</i>	B	PB
CO	Great Blue Heron	<i>Ardea herodias</i>	B	PB
NR	Short Eared Owl	<i>Asio flammeus</i>	W	PB-E

PO	Long-Eared Owl	<i>Asio otus</i>	YR	PB
NR	Ring-Necked Duck	<i>Aythya collaris</i>	B	PB-GS
CO	Tufted Titmouse	<i>Baeolophus bicolor</i>	YR	PB
NR	Upland Sandpiper	<i>Bartramia longicauda</i>	B	PB-GN-T
PR	Cedar Waxwing	<i>Bombycilla cedrorum</i>	YR	PB
CO	Ruffed Grouse	<i>Bonasa umbellus</i>	YR	PB-GS
NR	American Bittern	<i>Botaurus lentiginosus</i>	B	PB-SC
CO	Canada Goose	<i>Branta canadensis</i>	YR	PB-GS
PO	Great Horned Owl	<i>Bubo virginianus</i>	YR	PB
NR	Common Goldeneye	<i>Bucephala clangula</i>	B	PB-GS
PR	Red-Tailed Hawk	<i>Buteo jamaicensis</i>	B	PB
NR	Rough Legged Hawk	<i>Buteo lagopus</i>	W	PB
PO	Red-Shouldered Hawk	<i>Buteo lineatus</i>	B	PB-SC
PO	Broad Winged Hawk	<i>Buteo platypterus</i>	B	PB
PR	Green Heron	<i>Butorides virescens</i>	B	PB
NR	Lapland Longspur	<i>Calcarius lapponicus</i>	W	PB
PO	Whip-Poor-Will	<i>Caprimulgus vociferus</i>	B	PB-SC
PR	Northern Cardinal	<i>Cardinalis cardinalis</i>	YR	PB
NR	Common Redpoll	<i>Carduelis flammea</i>	W	PB
NR	Pine Siskin	<i>Carduelis pinus</i>	W	PB
PR	American Goldfinch	<i>Carduelis tristis</i>	YR	PB
PR	House Finch	<i>Carpodacus mexicanus</i>	YR	PB
PR	Purple Finch	<i>Carpodacus purpureus</i>	YR	PB
PO	Turkey Vulture	<i>Cathartes aura</i>	B	PB
PR	Veery	<i>Catharus fuscescens</i>	B	PB
PR	Hermit Thrush	<i>Catharus guttatus</i>	B	PB
NR	Swainson's Thrush	<i>Catharus ustulatus</i>	B	PB

PR	Brown Creeper	<i>Certhia americana</i>	YR	PB
PR	Belted Kingfisher	<i>Ceryle alcyon</i>	YR	PB
PO	Chimney Swift	<i>Chaetura pelagica</i>	B	PB
PR	Killdeer	<i>Charadrius vociferus</i>	B	PB-GN
NR	Common Nighthawk	<i>Chordeiles minor</i>	B	PB-SC
PO	Northern Harrier	<i>Circus cyaneus</i>	B	PB-T
PO	Marsh Wren	<i>Cistothorus palustris</i>	B	PB
NR	Sedge Wren	<i>Cistothorus platensis</i>	B	PB-T
CO	Evening Grosbeak	<i>Coccothraustes vespertinus</i>	YR	PB
P	Yellow Billed Cuckoo	<i>Coccyzus americanus</i>	B	PB
P	Black-Billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	B	PB
CO	Common Flicker	<i>Colaptes auratus</i>	YR	PB
NR	Pigeon	<i>Columba livia</i>	YR	*UN
NR	Olive Sided Flycatcher	<i>Contopus cooperi</i>	B	PB
PR	Eastern Pewee	<i>Contopus virens</i>	B	PB
PO	American Crow	<i>Corvus brachyrhynchos</i>	YR	PB-GS
PR	Common Raven	<i>Corvus corax</i>	YR	PB-GN
NR	Fish Crow	<i>Corvus ossifragus</i>	B	PB-GS
PR	Blue Jay	<i>Cyanocitta cristata</i>	YR	PB-GN
PR	Black Throated Blue Warbler	<i>Dendroica caerulescens</i>	B	PB
NR	Cerulean Warbler	<i>Dendroica cerulea</i>	B	PB-SC
PR	Yellow Rumped Warbler	<i>Dendroica coronata</i>	B	PB
PO	Prairie Warbler	<i>Dendroica discolor</i>	B	PB
PO	Blackburnian Warbler	<i>Dendroica fusca</i>	B	PB
PO	Magnolia Warbler	<i>Dendroica magnolia</i>	B	PB
CO	Chestnut Sided Warbler	<i>Dendroica pensylvanica</i>	B	PB
CO	Yellow Warbler	<i>Dendroica petechia</i>	B	PB

NR	Pine Warbler	<i>Dendroica pinus</i>	B	PB
PR	Black Throated Green Warbler	<i>Dendroica virens</i>	B	PB
CO	Bobolink	<i>Dolichonyx oryzivorus</i>	B	PB
PR	Pileated Woodpecker	<i>Dryocopus pileatus</i>	YR	PB
CO	Gray Catbird	<i>Dumetella carolinensis</i>	B	PB
PR	Alder Flycatcher	<i>Empidonax alnorum</i>	B	PB
NR	Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	B	PB
PR	Least Flycatcher	<i>Empidonax minimus</i>	B	PB
PR	Willow Flycatcher	<i>Empidonax traillii</i>	B	PB
NR	Horned Lark	<i>Eremophila alpestris</i>	YR	PB-SC
PR	American Kestrel	<i>Falco sparverius</i>	YR	PB
PR	American Coot	<i>Fulica americana</i>	B	PB-GS
NR	Common Snipe	<i>Gallinago gallinago</i>	B	PB-GS
PR	Common Moorhen	<i>Gallinula chloropus</i>	B	PB-GS
NR	Common Loon	<i>Gavia immer</i>	B	PB-SC
CO	Common Yellowthroat	<i>Geothlypis trichas</i>	B	PB
NR	Bald Eagle	<i>Haliaeetus leucocephalus</i>	W	PB-T
CO	Barn Swallow	<i>Hirundo rustica</i>	B	PB
PR	Wood Thrush	<i>Hylocichla mustelina</i>	B	PB
PR	Baltimore Oriole	<i>Icterus galbula</i>	B	PB
NR	Orchard Oriole	<i>Icterus spurius</i>	B	PB
NR	Least Bittern	<i>Ixobrychus exilis</i>	B	PB-T
PR	Northern Junco	<i>Junco hyemalis</i>	YR	PB
NR	Northern Shrike	<i>Lanius excubitor</i>	W	PB
NR	Herring Gull	<i>Larus argentatus</i>	W	PB
NR	Great Black-backed Gull	<i>Larus marinus</i>	W	PB

CO	Hooded Merganser	<i>Lophodytes cucullatus</i>	B	PB-GS
NR	Red Crossbill	<i>Loxia curvirostra</i>	YR	PB
PR	Eastern Screech Owl	<i>Megascops asio</i>	YR	PB
PO	Red bellied Woodpecker	<i>Melanerpes carolinus</i>	YR	PB
NR	Red Headed Woodpecker	<i>Melanerpes erythrocephalus</i>	YR	PB-SC
CO	Turkey	<i>Meleagris gallopavo</i>	YR	PB-GS
PR	Swamp Sparrow	<i>Melospiza georgiana</i>	B	PB
CO	Song Sparrow	<i>Melospiza melodia</i>	YR	PB
CO	Common Merganser	<i>Mergus merganser</i>	B	PB-GS
CO	Northern Mockingbird	<i>Mimus polyglottos</i>	YR	PB
PR	Black and White Warbler	<i>Mniotilta varia</i>	B	PB
PR	Brown Headed Cowbird	<i>Molothrus ater</i>	YR	PB
PR	Great Crested Flycatcher	<i>Myiarchus crinitus</i>	B	PB
NR	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	B	PB
NR	Mourning Warbler	<i>Oporornis philadelphia</i>	B	PB
PO	Osprey	<i>Pandion haliaetus</i>	B	PB-SC
NR	Northern Parula Warbler	<i>Parula americana</i>	B	PB
PR	House Sparrow	<i>Passer domesticus</i>	YR	*UN
PR	Savannah Sparrow	<i>Passerculus sandwichensis</i>	B	PB
PR	Indigo Bunting	<i>Passerina cyanea</i>	B	PB
PO	Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	B	PB
PO	Double-crested Cormorant	<i>Phalacrocorax auritus</i>	B	PB
CO	Ring-Necked Pheasant	<i>Phasianus colchicus</i>	YR	*PB-GS
PR	Rose Breasted Grosbeak	<i>Pheucticus ludovicianus</i>	B	PB
PR	Downy Woodpecker	<i>Picoides pubescens</i>	YR	PB
PR	Hairy Woodpecker	<i>Picoides villosus</i>	YR	PB

PR	Rufous Sided Towhee	<i>Pipilo erythrophthalmus</i>	B	PB
PR	Scarlet Tanager	<i>Piranga olivacea</i>	B	PB
NR	Snow Bunting	<i>Plectrophenax nivalis</i>	W	PB
PR	Pied-billed Grebe	<i>Podilymbus podiceps</i>	B	PB-T
PR	Black Capped Chickadee	<i>Poecilla atricapillus</i>	YR	PB
PO	Blue Gray Gnatcatcher	<i>Polioptila caerulea</i>	B	PB
PO	Vesper Sparrow	<i>Pooecetes gramineus</i>	B	PB-SC
NR	Sora	<i>Porzana carolina</i>	B	PB-GS
NR	Purple Martin	<i>Progne subis</i>	B	PB
CO	Common Grackle	<i>Quiscalus quiscula</i>	YR	PB
PR	Virginia Rail	<i>Rallus limicola</i>	B	PB-GS
PO	Golden Crowned Kinglet	<i>Regulus satrapa</i>	YR	PB
CO	Bank Swallow	<i>Riparia riparia</i>	B	PB
CO	Eastern Phoebe	<i>Sayornis phoebe</i>	B	PB
CO	American Woodcock	<i>Scolopax minor</i>	B	PB-GS
PR	Ovenbird	<i>Seiurus aurocapillus</i>	B	PB
NR	Louisiana Waterthrush	<i>Seiurus motacilla</i>	B	PB
NR	Northern Waterthrush	<i>Seiurus noveboracensis</i>	B	PB
PR	American Redstart	<i>Setophaga ruticilla</i>	B	PB
PR	Eastern Bluebird	<i>Sialia sialis</i>	B	PB
PO	Red Breasted Nuthatch	<i>Sitta canadensis</i>	YR	PB
PR	White Breasted Nuthatch	<i>Sitta carolinensis</i>	YR	PB
NR	American Tree Sparrow	<i>Sizella arborea</i>	W	PB
PR	Yellow-Bellied Sapsucker	<i>Sphyrapicus varius</i>	B	PB
PR	Chipping Sparrow	<i>Spizella passerina</i>	B	PB
PR	Field Sparrow	<i>Spizella pusilla</i>	B	PB
PO	Rough winged Swallow	<i>Stelgidopteryx ruficollis</i>	B	PB

PR	Barred Owl	<i>Strix varia</i>	YR	PB
PR	Eastern Meadowlark	<i>Sturnella magna</i>	YR	PB
CO	European Starling	<i>Sturnus vulgaris</i>	YR	*UN
NR	Tree Swallow	<i>Tachycineta bicolor</i>	B	PB
NR	Carolina Wren	<i>Thryothorus ludovicianus</i>	B	PB
CO	Brown Thrasher	<i>Toxostoma rufum</i>	B	PB
CO	House Wren	<i>Troglodytes aedon</i>	B	PB
NR	Winter Wren	<i>Troglodytes troglodytes</i>	B	PB
CO	American Robin	<i>Turdus migratorius</i>	B	PB
PR	Eastern Kingbird	<i>Tyrannus tyrannus</i>	B	PB
NR	Golden winged Warbler	<i>Vermivora chrysoptera</i>	B	PB-SC
PR	Blue Winged Warbler	<i>Vermivora pinus</i>	B	PB
NR	Nashville Warbler	<i>Vermivora ruficapilla</i>	B	PB
PO	Yellow Throated Vireo	<i>Vireo flavifrons</i>	B	PB
PO	Warbling Vireo	<i>Vireo gilvus</i>	B	PB
PR	Red Eyed Vireo	<i>Vireo olivaceus</i>	B	PB
PO	Solitary Vireo	<i>Vireo solitarius</i>	B	PB
NR	Canada Warbler	<i>Wilsonia canadensis</i>	B	PB
CO	Mourning Dove	<i>Zenaida macroura</i>	YR	PB
PO	White Throated Sparrow	<i>Zonotrichia albicollis</i>	YR	PB

* non-native

Source: Adapted from Breeding Bird Atlas 1980-1985, 2000-2005, Peterson's Guide to Eastern Birds, and Sibley's Field guide to birds

Appendix III- Game and Furbearer Harvest

Deer

Deer Harvest: Bucks for towns within the unit, Washington County, and NY State											
Area	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Cambridge	216	250	196	222	148	125	164	169	155	213	234
White Creek	87	128	151	148	168	101	129	131	144	130	153
Greenwich	207	233	237	164	94	109	94	124	121	162	155
Jackson	150	158	139	129	105	144	95	131	97	114	152
Salem	277	272	261	255	166	144	132	161	171	202	220
Wash. Co.	2,390	2,578	2,406	2,333	1,740	1,610	1,582	1,987	1,909	2,068	2,153
NY State	125,392	140,857	127,084	128,292	107,533	88,733	89,015	96,569	104,451	105,747	102,057

Deer Harvest: Bucks and Does for towns within the unit, Washington County, and NY State											
Area	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Cambridge	408	558	673	651	336	232	269	265	275	329	405
White Creek	140	175	291	303	223	154	196	176	228	211	252
Greenwich	348	469	608	482	203	184	167	236	229	279	296
Jackson	285	310	361	329	199	221	177	237	198	214	290
Salem	618	521	712	740	331	261	258	309	303	368	415
Wash. Co.	4,235	4,678	5,645	5,772	2,925	2,561	2,598	3,285	3,404	3,450	3,854
NY State	255,959	295,859	281,870	308,216	253,088	208,406	180,214	189,108	219,141	222,979	222,798

Turkey

Spring Turkey Harvest- For the North Taconic Highlands, Washington County, and NY State											
Area	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
N. Taconic Highlands	1,504	1,259	1591	1274	701	823	442	316	969	567	420
Washington County	1,087	843	1172	814	854	685	666	596	792	693	850
NY State	44,900	36,300	44,400	39,300	36,800	26,300	24,910	27,745	35,625	32,936	34,664

Fall Turkey Harvest- For the North Taconic Highlands, Washington County, and NY State											
Area	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
N.Taconic Highlands	968	302	799	276	749	241	211	181	616	255	165
Washington County	807	307	582	340	623	427	309	270	329	327	213
NY State	28,500	12,400	21,100	11,800	15,800	12,211	9,812	9,202	12,654	11,614	7,204

Furbearers

Beaver											
Area	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Cambridge	0	0	38	6	7	9	18	13	20	14	0
Greenwich	3	5	19	78	4	14	21	60	37	18	30
Jackson	12	15	8	12	28	14	8	34	12	2	9
Washington Co.	285	258	284	428	190	170	256	412	370	192	267
NY State	14266	18864	12809	22533	10419	16304	16685	22492	23928	15088	16032

Fisher											
Area	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Cambridge	0	0	0	0	7	0	8	6	11	5	1
Greenwich	2	0	0	0	4	1	15	0	6	4	7
Jackson	0	0	0	0	1	0	6	2	3	2	7
Washington Co.	29	22	20	39	55	36	94	61	107	60	48
NY State	1230	1506	1191	2431	1782	2364	2942	2624	3244	2772	1884

River Otter											
Area	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Cambridge	0	0	0	0	0	1	1	2	0	0	0
Greenwich	0	0	1	3	0	3	1	1	1	1	0
Jackson	1	1	1	2	1	1	0	2	2	1	1
Washington Co.	8	8	12	41	27	17	29	50	41	28	22
NY State	640	1005	743	1242	802	1258	1164	1404	993	679	904

Bobcat											
Area	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Cambridge	0	2	2	0	10	0	2	3	7	2	0
Greenwich	2	0	0	0	0	1	2	2	2	1	4
Jackson	0	4	0	2	3	2	2	4	2	1	3
Washington Co.	23	38	33	23	42	35	35	50	50	30	39
NY State	285	264	265	310	313	437	439	472	509	436	418

Coyote											
Area	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Cambridge	0	0	1	0	1	6	4	NA	NA	NA	NA
Greenwich	0	0	1	1	1	2	2	NA	NA	NA	NA
Jackson	0	0	1	3	7	3	3	NA	NA	NA	NA
Washington Co.	42	46	49	57	62	83	59	NA	NA	NA	NA
NY State	2203	2349	2684	3077	3155	4218	2161	NA	NA	NA	NA

*Coyote pelt sealing was discontinued in 2005

Appendix IV- Forest Stand Information

Forest type	Species Codes
NH – Northern hardwood	ALDER – alder species
NH - oak – Northern hardwood – oak	AP – apple species
B. field – Brushy field	ASP – aspen species
RP – SP – Red Pine – Norway spruce	BA – black ash
NS – Norway spruce	BB – black birch
NH – WP – Northern hardwood – white pine	BC – Northern black cherry
WP – SP – White Pine – white spruce	BE – American beech
NH –hem – Northern hardwood – hemlock	BL – black locust
Oak – pine – Oak – pine species	CO – chestnut oak
JL – Japanese larch	ELM - elm
L-sp – Larch – spruce species	HEM – Eastern hemlock
RP – red pine	HM – Hard maple or sugar maple
Oak – oak species	IWD – Eastern Hophornbeam or iron wood
WP-nat – natural white pine	JL – Japanese larch
Swmp h – swamp hardwoods	NS – Norway spruce
NH-SP-Fir – Northern Hardwood –spruce- fir	RM – red maple
	RO – Northern red oak
	RP – red pine
Unit – Washington County Reforestation Area #	SH – shagbark hickory
	SP – Scotch pine
Cpt – Compartment#	TA – thorn apple
	WA – white ash
Stand – Stand #	WB – white birch
	WP – Eastern white pine
Acres - # acres	WS – white spruce
	YB – yellow birch

DBH – diameter at 4.5 feet

BA – basal area

Mgt. Direction

E – Even aged

U – Uneven aged

EP – Even aged (plantation)

Treatment type

TSI – Timber Stand Improvement thinning (may be commercial)

ST – Sawtimber thinning / harvest

Treatment Priority

L – Low

M – Medium

H – High

VH – Very High

Unit	Cpt	Stand	Forest type	Acres	Species	DBH	BA	e/u	Site	Mgt. Direc.	Objective	Treat Type	Treat prior
1	1	1	NH-oak	82	HM-RM	9-11	97	u	3	u	NH-oak	TSI	M
		2	NH	181	HM-WB	11-14	93	e	2	e	NH	TSI / H	M
		3	NH-oak	142	HM-RO	11-14	86	u	2	u	NH-oak	TSI / H	M
		4	NH	11	RM-BB	9-11	100	e	1	e	NH	TSI	M
		5	NH-oak	80	HM-IWD	9-11	82	e	1	e	NH-oak	TSI	M
		6	B.field	35							B.field		
		7	RP-SP	30	RP-NS	11-14	129	ep	2	ep	RP-NS	ST	M
		8	NH	10	HM-WA	9-11	109	u	1	u	NH	TSI	H
		9	RP-SP	64	NS-RP	11-14	139	ep	2	ep	NS-RP	ST	M
		10	NH-oak	5	HM-RO	11-14	72	u	1	u	NH-oak	TSI / H	M
		11	NH-oak	32	BB-RO	11-14	82	e	1	e	NH-oak	TSI / H	M
		12	NH-oak	4	WA-ASP	9-11	83	e	3	e	NH-oak	TSI	M
		13	NH-oak	2	HM-BE	11-14	88	u	3	u	NH-oak	TSI	M
		14	NS	3	NS			ep		e	NH-NS		
		15	NH-WP	16	WP-RM	11-14	262	e	2	e	NH-wp	TSI / H	VH
		16	NH-hem	14	Hem-RO	9-11	286	u	1	u	NH-hem	TSI	VH
	2	1	NH-hem	96	Hem-RM	11-14	141	e		Prot	NH-hem		
		2	NH-oak	136	RM-RO	11-14	109	u	1	u	NH-oak	TSI / H	H
		3	NH-WP	158	WP-RM	9-11	136	e	3	e	NH-wp	TSI / H	M
		4	NH-WP	11	WP-RM	9-11	107	u	1	u	NH-wp	TSI	M
		5	NH-oak	176	RO-HM	11-14	104	u	1	u	NH-oak	TSI / H	M
		6	NH-WP	157	RM-IWD	11-14	89	u	3	u	NH-wp	TSI / H	M
		7	NH-oak	12	BE-HM	11-14	91	u	3	u	NH-oak	TSI / H	M
		8	NH-oak	29	WB-RM	9-11	100	e	2	e	NH-oak	TSI	M
		9	NH-WP	13	RM-WB	9-11	95	e	1	e	NH-wp	TSI	M
		10	WP-SP	11	WS-WP	6-9	178	ep		Nrs			
		11	NH	5	HM-RM	9-11	110	e	1	e	NH	TSI	H
		12		2						Nrs			
		13		9						Nrs			
		14		3						Nrs			
		15		1						Nrs			
		16		2						Nrs			
		17		4						Nrs			
		18		27						Wlf			
		19	NH	16	RM-WB	9-11	94	u	1	u	NH	TSI	M
		20	NH-WP	14	WP-RM	9-11	204	u	3	u	NH-WP	TSI	VH
		21	WP-SP	16	WS-WP	9-11	122	ep	1	e	WP-sp	TSI	M
		22		39						Wlf			
		23	NH-WP	22	WP-RM	11-14	114	u	3	u	NH-wp	TSI / H	H
		24	NH-hem	6	HEM-CO	9-11	302	u	1	u	NH-hem	TSI / H	VH
		25	NH-hem	10	HEM-RO	9-11	216	u	1	u	NH-hem	TSI / H	VH
		26	NH	6	RM-WA	9-11	72	u	3	u	NH	TSI	M
2	1	1	NH	34	HM-WA	11-14	89	e	3	e	NH	TSI / H	M
		2	RP-sp	25	RP-NS	11-14	146	ep	2	e	NH - NS	TSI / H	M
		3	NH	47	HM-WA	11-14	80	e	2	e	NH	TSI / H	M
		4	oak-pine	78	RM-RO	9-11	105	e	1	e	oak-pine	TSI / H	M
		5	NH-oak	33	RO-HM	9-11	100	e	2	e	NH-oak	TSI / H	M
		6	RP-sp	43	RP-NS	11-14	144	ep	2	ep	RP - NS	ST	M
		7	RP-sp	14	NS-RP	9-11	195	ep	1	ep	NS-RP	TSI / H	H
		8	NH-oak	21	HM-RO	9-11	95	e	1	e	NH-oak	TSI	M
		9	NH-oak	26	HM-RO	9-11	104	e	1	e	NH-oak	TSI	M
		10	JL	19	JL-WB	6-9	102	ep	3	e	JL	TSI	M
		11	NH-oak	11	HM-RM	11-14	122	u	1	u	NH-oak	TSI / H	VH
		12	L-sp	18	JL-NS	11-14	184	ep	1	ep	JL - NS	ST	H
		13	NH	62	HM-RM	9-11	92	e	1	e	NH	TSI / H	M
		14	NH-WP	23	WP-BB	11-14	111	u	3	u	NH-WP	TSI / H	M

Unit	Cpt	Stand	Forest type	Acres	Species	DBH	BA	e/u	Site	Mgt. Direc.	Objective	Treat Type	Treat prior
2	1	15	NH-WP	51	BE-RM	11-14	108	u	1	u	NH-WP	TSI / H	M
		16	NH-oak	29	HM-RM	9-11	117	e	1	e	NH-oak	TSI / H	VH
		17	JL	6	JL	6-9	86	ep	3	ep	JL	TSI	M
	2	1	NH	93	BE-RO	11-14	128	u	1	u	NH	TSI / H	VH
		2	NH-oak	26	RO-BE	11-14	116	u	2	u	NH-oak	TSI / H	H
		3	NH-WP	21	HM-WA	9-11	109	u	1	u	NH-WP	TSI	M
		4	NH-oak	44	HM-RM	9-11	110	e	1	e	NH-oak	TSI	H
		5	NH-WP	17	RM-ASP	11-14	138	u	1	u	NH-WP	TSI / H	H
		6	NH	17	RO-RM	9-11	118	e	2	e	NH	TSI / H	VH
		7	RP	5	RP-WP	9-11	208	ep	1	ep	RP	TSI	VH
		8		1						GP			
		9		21						Wlf			
3	1	1	NH-oak	61	HM-BE	11-14	109	u	1	u	NH-oak	TSI / H	H
		2	NH-oak	117	RO-CO	11-14	116	u	2	u	NH-oak	TSI / H	H
		3	NH-WP	24	HM-WP	11-14	119	u	2	u	NH-WP	TSI / H	H
		4	oak-pine	44	RO-WA	9-11	112	u	1	u	oak-pine	TSI / H	H
		5	oak-pine	40	RO-CO	9-11	113	u	1	u	oak-pine	TSI / H	H
		6	NH-oak	43	RO-RM	11-14	134	u	2	u	NH-oak	TSI / H	VH
		7	oak-pine	37	RO-CO	11-14	115	u	3	u	oak-pine	TSI / H	H
		8	NH-oak	82	RO-HM	11-14	116	u	2	u	NH-oak	TSI / H	H
4	1	1	NH-oak	129	RO-SH	11-14	107	e	2	e	NH-oak	TSI / H	H
		2		5									
		3	NH	23	HM-BE	11-14	105	u	2	u	NH	TSI / H	M
		4	NH-oak	90	RO-CO	11-14	86	e	1	e	NH-oak	TSI / H	M
		5	NH-wp	20	WP-SH	9-11	48	u	1	u	NH-wp	TSI / H	L
		6	NH	70	HM-BE	11-14	80	u	2	u	NH	TSI / H	M
		7	NH	33	HM-BB	9-11	83	u	1	u	NH	TSI / H	M
		8	Oak	16	RO-CO	9-11	109	e	3	e	Oak	TSI / H	H
		9	oak-pine	12	WP-CO	11-14	90	u	3	u	oak-pine	TSI / H	M
		10	WP-nat	7	WP-BC	11-14	205	e	2	e	WP-nat	TSI / H	H
5	1	1		33	field / wet								
		2	swmp h	10	RM-WA	6-9	54	e	3	Prot	wetland		
		3	swmp h	25	RM-IWD	6-9	72	e	3	Prot	wetland		
		4	NH	4	ELM-TAP	11-14	15	e		Prot	wetland		
		5	nh-sp-fir	52	RM-BA	9-11	182	u	1	u	nh-sp-fir	TSI	VH
		6	NH	16	RM-BA	9-11	182	u		Prot	wetland		
		7	NH-WP	24	WP-RM	9-11	202	u	1	u	NH-WP	TSI	VH
		8	NH-WP	24	WP-RM	9-11	202	u		Prot	wetland		
	2	1		13	Old field						NH-WP		
		2	NH-WP	16	HM-WP	9-11	84	u	1	u	NH-WP	TSI	M
		3	NH	14	H M-ELM	9-11	54	u	1	u	NH	TSI	L
		4		15	Old Field						NH-WP		
		5		6	Old Field						Old Field	Mow	
		6	NH-WP	26	WP-RM	11-14	106	u	3	u	NH-WP	TSI / H	M
		7	NH-WP	5	RM-WP	11-14	92	e	3	e	NH-WP	TSI	M
		8	NH-oak	7	CO-RM	9-11	98	e	1	e	NH-oak	TSI	M
		9	Wp-nat	7	WP-RM	14-18	190	u	3	u	Wp-nat	TSI / H	H
		10		3	Old Field						NH-WP		
		11	NH-oak	16	HM-CO	11-14	94	e	3	e	NH-oak	TSI / H	M
		12	NH-hem	12	CO-hem	9-11	178	e	1	e	NH-hem	TSI / H	VH
		13		9	Old Field						Old Field	Mow	
		14	NH-WP	9	RM-WP	9-11	102	u	1	u	NH-WP		M
		15	NH-oak	37	CO-HM	9-11	110	e	1	e	NH-oak		H

Appendix V- Tax Data

			2010	2009	2009	2008	2008
State Forest	Parcel	Acres	County & Town	School	County & Town	School	County & Town
	Jackson						
Wash#4 - Batten Kill	241.-2-19	535	\$1,467.91	\$7,142.80	\$1,420.34	\$7,420.64	\$1384.26
Wash #5 – Eldridge Swamp	248.-2-13.2	95	\$319.32	\$1,567.82	\$317.88	\$1,628.81	\$316.08
Wash #5 – Eldridge Swamp	248.-2-13.3	437	\$971.62	\$4,770.52	\$967.24	\$4956.08	\$961.76
	TOTAL	1067	\$2,758.85	\$13,481.14	\$2,705.46	\$14,005.53	\$2,662.10
	White Creek						
Wash # 2 – Chestnut Woods	258.-1-6	82	\$703.44	\$1845.05	\$678.11	\$1835.80	\$666.68
Wash # 1 – Mt. Tom	265.-1-9.3	2	\$20.66	\$54.20	\$19.92	\$53.93	\$19.59
Wash # 1 – Mt. Tom	265.-1-25	419	\$3609.31	\$9466.88	\$3479.36	\$9419.40	\$3420.67
Wash # 2 – Chestnut Woods	266.-1-1	338	\$2906.74	\$7624.09	\$2802.08	\$7585.85	\$2754.81
Wash # 2 – Chestnut Woods	266.-1-3	98	\$841.20	\$2206.38	\$810.91	\$2195.31	\$797.24
Wash # 1 – Mt. Tom	273.-2-3	238	\$2052.62	\$5383.83	\$1978.72	\$5356.84	\$1945.35
Wash # 1 – Mt. Tom	273.-2-4	43	\$369.37	\$968.82	\$356.07	\$963.96	\$350.07
Wash # 1 – Mt. Tom	273.-2-7	42	\$361.62	\$948.49	\$348.60	\$943.74	\$342.72
	TOTAL	1262	\$10,864.96	\$28,497.74	\$10,473.77	\$28,354.83	\$10,297.13

Appendix VI- Mined Land Reclamation Standards

The following mined land reclamation standards apply to lands operated and maintained by the Department of Environmental Conservation when mineral resources are to be extracted for purposes of construction related projects. The reclamation standards apply when the amount of materials to be extracted from any one site during twelve consecutive months do not exceed the Mined Land Reclamation permit threshold, i.e., 1000 tons or 750 cubic yards.

1. Basic reclamation shall include: grading and slope treatment, disposal of refuse or spoil, drainage and water control features and re-vegetation.
2. Where possible, continuing reclamation concurrent with mineral resource extraction will be scheduled and implemented.
3. The perimeter of a mine shall be treated in a manner so as to eliminate hazards and to minimize the visual impact of the mine to the maximum extent. Treatments may include the use of berms, shrub or tree plantings and fencing.
4. Topsoil/overburden will first be stripped, stockpiled and seeded from areas to be mined for sand, gravel or shale type mineral resources. All topsoil will be saved and used exclusively for reclaiming affected land. A minimum of six inches of cover material with a soil composition capable of sustaining plant growth shall be provided on all land to be revegetated.
5. All mine floor heavy use areas will be ripped and/or disked in order to alleviate compaction

after grading.

6. All final slopes will be graded off and left not steeper than one vertical on two horizontal (26 degrees from horizontal).

7. Topsoil will be replaced (evenly graded) on all affected lands after grading, ripping and/or disking.

8. Following replacement of topsoil, the exposed surface areas must be immediately seeded, fertilized, limed and mulched.

9. Seeding mixtures and application rates vary. Seed mixtures should be based upon individual forest unit management plan goals, objectives, soil texture and drainage characteristics

a. Select a seed mixture that will provide initial erosion control results and varieties that will provide the long term vegetative productivity necessary to satisfy the desired unit management plan goals and objectives.

b. Fertilize at 600 pounds per acre, 5-10-10 fertilizer.

c. Lime per soil test results and adjust between 5.5 - 7.5. Approximately 1 ton/acre application will increase the pH level up one tenth of a point.

d. Mulch with hay or straw to cover 75 - 100 % of the soil surface (2 tons per acre).

Appendix VII- Conservation Seed Mixtures

It is recommended that seeding rates be doubled when using a broadcast type seed applicator.

Gravelly Silt Loam Soils (Medium to Fine)

20 lb/ac Creeping Red Fescue or Tall Fescue
8 lb/ac Birdsfoot Trefoil
2 lb/ac Redtop
Total: 30 lb/ac

5 lb/ac Orchardgrass
10 lb/ac Flat Pea
10 lb/ac Tall Fescue or Smooth Bromegrass
2 lb/ac Red Top
Total: 27 lb/ac

Sand and Gravel Soils (Course to Medium)

4 lb/ac Switchgrass (PLS)
4 lb/ac Indiangrass (PLS)
2 lb/ac Little Bluestem (PLS)
1.5 lb/ac Sand Lovegrass (PLS)
Total: 11.5 lb/ac

PLS - Pure Live Seed

Note: More detailed revegetation principles and practices are available in the Division of Mineral Resource's "Revegetation Procedures Manual" for surface mining reclamation.

Appendix VIII- Inventory of Facilities

Asset – signs/parking lot etc.

Facility – State forest or Carter's Pond WMA

ID – Identifying symbol

Description – description

Asset	Facility	ID	Description
Sign	CPWMA	CPS1	Sign Standard (log / untreated) w/ typical wooden State land ID sign "Carter Pond Philip A. Dustin Wildlife Management Area 435 Acres State of New York Department of Environmental Conservation" Condition: Readable, letters beginning to peel
Sign	CPWMA	CPS2	Sign Standard (pressure treated) w/ typical wooden State Land ID sign "Carter's Pond Nature Trail Constructed in 1980 by Y.C.C. Y.C.C. Coordinator Steve Black Crew Supervisor Gerald Chamberlain Crew: Linda, Mary, Juan, Marisa, Debbie, Jeanette, Russ, Alison, Jon, Tom, Blaise, Randy, Scott, Jeff, Mike Contributors Dr. Potter, WIA, D.E.C." Condition: Very good
Sign	CPWMA	CPS3	Sign Standard (pressure treated) w/ typical wooden State Land ID sign "Observation Tower and Nature Trail Donated by the Waterfowl Improvement Association" Condition: Very good
Sign	CPWMA	CPS4	Wooden Sign with wooden frame border mounted to two pressure treated posts brown / yellow "Waterfowl Habitat Restoration A special habitat enhancement project to benefit waterfowl was completed on the Carter's Pond Wildlife Management Area. The dam and water control structure will provide permanent, high quality habitat for many wildlife species, and enhanced recreational opportunity. Funding for this project was provided by: The N.Y.S. MIGRATORY BIRD STAMP PROGRAM, DUCKS UNLIMITED, INC. and the WATERFOWL IMPROVEMENT ASSOCIATION"

			Condition: good, needs brown stain on sign frame.
Monument	CPWMA	CPM1	Stone monument protected w/ two metal bollards "ERECTED BY WATERFOWL IMPROVEMENT ASSOCIATION INC. DEDICATED TO IMPROVING HABITAT AT CARTERS POND AND SIMILAR AREAS. IN MEMORY OF ITS FOUNDER. PHIL. A. DUSTIN DEVOTED CONSERVATIONIST AND SPORTSMAN APR. 13. 1917 – OCT. 13. 1975" Condition: Very good
Kiosk	CPWMA	CPK1	New Kiosk with shingled roof pressure treated two panels front and two panels back. Mowed grass setting. Panels: Map / history, NYS bird conservation area, Upland birds, Wetland birds
Parking lot	CPWMA	CPP1	Nature trail gravel parking lot approximately 200' X 40' with two entrances to County Route 49. Condition: few bollards but good condition, gravel - fair
Parking lot	CPWMA	CPP2	Fisherman's gravel parking lot approximately 130' X 50' along County Route 49 with additional driveway south leading to road edge. Condition: wooden bollards defining parking lot need brown stain and some may need replacement. Parking lot / road transition is ledge-like and parking lot could use extra gravel especially at road edge. Improved drainage needed at boat launch.
Parking lot	CPWMA	CPP3	Unpaved parking lot along Mill Rd. approximately 50' X 40' Pole bumper around perimeter. Condition: good
Parking lot	CPWMA	CPP4	Unpaved parking lot along Ferguson Rd. approximately 40' X 60' Grass, no bumpers. Condition: good
Dam	CPWMA	CPD1	Earthen and sheetpile dam. Condition: fair- drop boards need to be replaced and debris removed
Dam access	CPWMA	CPDA	Unpaved grassy path from Ferguson Rd. to Dam approximately 440' long. Condition: good
Bridge	CPWMA	CPB1	New raised pressure treated bridging along the nature trail 4' wide by 105' long.
Bridge	CPWMA	CPB2	New raised pressure treated bridging along the nature trail 4' wide by 72' long.
Trail	CPWMA	CPT1	Carter's Pond Nature Trail. Loop trail through woods at south east corner of property. Approximately 1 mile in length.
Trail	CPWMA	CPT2	Accessible trail from parking lot to observation tower. Fine gravel compacted. Edged with pressure treated poles. Trail is approximately 50' in length. Condition:

			good
Tower	CPWMA	CPOT	Observation tower. Accessible pressure treated wood structure. Approximately 80' long
Boat Launch	CPWA	CPBL1	Gravel Car top Boat Launch approximately 65 feet long from fisherman parking lot to water edge. Condition: good, needs water control devices, not universally accessible
Boundary	CPWMA	CPbnd	3.3 Miles boundary
Sign	WASH 1	W1S1	ID sign North end Notch Lane. 48"X24" wooden / brown/yellow. Brown metal well casing sign standard "MT. TOM STATE FOREST NOTCH LANE TRUCK TRAIL TRAVEL AT YOUR OWN RISK STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION"
Gate	WASH1	W1G1	Gate north end Notch Lane. Metal lift swing gate with open and close posts. 25' long. Condition: good
Culvert	WASH1	W1C1	Large metal squashed culvert, laid stone headwalls. Condition: good
Parking lot	WASH1	W1P1	Unpaved parking lot / turn around located west side of Notch Lane. Approximately 60' X 20'
Sign	WASH1	W1S2	Wooden ID Sign 48" X 32" brown / yellow. Brown metal well casing pipe sign standard. "MT. TOM STATE FOREST 1680 ACRES STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION" Condition: good
Parking lot	WASH1	W1P2	Unpaved parking lot in old landing west side of Notch Lane, South end of road. Condition: wet spots seasonally
Sign	WASH1	W1S3	Wooden sign 48" X 24" south end of Notch Lane. Brown / Yellow "MT. TOM STATE FOREST NOTCH LANE TRUCK TRAIL TRAVEL AT YOUR OWN RISK STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION" Brown metal well casing pipe sign standard. Condition: good
Gate	WASH1	W1G2	Metal pipe slide gate south end Notch Lane. 20' long. Condition: good
Sign	WASH1	W1S4	Wooden ID sign along Lincoln Hill Rd. Entrance to Seed Orchard. 48" X 32" brown / yellow. Brown metal well casing pipe sign standard. "MT. TOM STATE FOREST 1680 ACRES STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL

			CONSERVATION" Condition: good
Parking lot	WASH1	W1P3	Mowed grass parking lot and end of small gravel drive off Lincoln Hill Rd. at the seed orchard. Room for 20 cars / horse trailer turn around. Condition: good
Sign	WASH1	W1S5	Wooden sign 48" X 24" brown / yellow on brown metal well casing pipe sign standard. Located on Shaker Hollow Rd. at beginning of truck trail. "MT TOM STATE FOREST SHAKER HOLLOW TRUCK TRAIL TRAVEL AT YOUR OWN RISK STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION" Condition: good
Bridge	WASH1	W1B1	Wooden bridge located at beginning of Shaker Hollow Truck Trail. Gravel on surface. Condition: appears in good shape, Should be inspected
Culvert	WASH1	W1SC1	14" CMP 20' long Shaker Hollow Truck Trail. Condition: good
Parking lot	WASH1	W1P4	Small gravel parking lot 2-3 cars east side of Shaker Hollow Truck Trail. Condition: good
Culvert	WASH1	W1SC2	14" CMP 20' long, Shaker Hollow Truck Trail. Condition: good but needs fill over culvert
Parking lot	WASH1	W1P5	Parking lot at old landing Shaker Hollow Truck Trail. Room for horse trailer turn around and park. Condition: good
Culvert	WASH1	W1SC3	24" CMP just north of Shaker Hollow landing parking lot. Condition: good
Parking lot	WASH1	W1P6	Small one-car parking east side of Shaker Hollow Truck Trail just north of large landing. Condition: good
Parking lot	WASH1	W1P7	Small one-car parking west edge of Shaker Hollow at intersection with snowmobile trail. Condition: good
Boundary	WASH1	W1bnd	6.6 miles boundary
Truck Trail	WASH1	W1TT1	Notch Lane Truck Trail 1.3 miles Condition: needs maintenance
Culvert	WASH1	W1NC1	South end Notch Lane. 18" X 23' Plastic, Good Condition
Culvert	WASH1	W1NC2	18" X 27' Aluminum, dry location, not needed
Culvert	WASH1	W1NC3	18" X 15' Plastic, Good Condition
Culvert	WASH1	W1NC4	24" X 18' Aluminum, Good Condition, Top end need

			rocks removed.
Culvert	WASH1	W1NC5	18" X 18' Plastic, Good Condition, Top end needs cleaning.
Culvert	WASH1	W1NC6	18" X 32' Aluminum, Good Condition, Top end needs cleaning.
Culvert	WASH1	W1NC7	18" X 22' Aluminum, Poor Condition, Top end deformed.
Culvert	WASH1	W1NC8	18" X 18' Aluminum, Poor Condition, Top and bottom ends deformed.
Culvert	WASH1	W1NC9	24" X 27' Aluminum, Poor Condition, Insufficient slope, high water flow location.
Culvert	WASH1	W1NC10	18" X 18' Aluminum, Poor Condition, top and bottom ends need cleaning.
Culvert	WASH1	W1NC11	18" X 24' Aluminum, Poor Condition
Culvert	WASH1	W1NC12	18" X 32' Aluminum, Poor Condition
Culvert	WASH1	W1NC13	18" X 33' Aluminum, Poor Condition, top and bottom ends need cleaning, high flow location.
Culvert	WASH1	W1NC14	18" X 30' Plastic, Good Condition, top end needs cleaning.
Culvert	WASH1	W1NC15	18" X 30' Plastic, Good Condition, top end needs cleaning.
Culvert	WASH1	W1NC16	30" X 32' Aluminum, Good Condition.
Culvert	WASH1	W1NC17	North end Notch Lane 64" X 30' metal squash culvert, Good Condition, stacked stone headwalls on both sides.
Truck Trail	WASH1	W1TT2	Shaker Hollow Truck Trail 1.3 miles Condition: needs maintenance
Trail	WASH1	W1TR1	Snowmobile trail west side of state forest 1.8 miles Condition: good
Trail	WASH1	W1TR2	Snowmobile trail east side of state forest 1.6 miles Condition: good
Sign	WASH 2	W2S1	Wooden ID sign brown/yellow. Brown metal well casing pipe sign standard. Located at south access to Chestnut Woods. "CHESTNUT WOODS STATE FOREST 802 ACRES STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL

			CONSERVATION" Condition: good
Parking lot	WASH2	W2P1	Small pull-off at south entrance to Chestnut Woods State Forest 2-3 car capacity. Condition: poor – blocks administrative access.
Gravel Pit	WASH2	W2GP	Inactive gravel pit at end of .25 mile administrative access road. Condition: good
Gate	WASH2	W2G1	Metal pipe slide gate. 16' long. Condition: good
Road	WASH2	W2AR	Access Road from Chestnut Hill Rd. to northern portion of Washington #2 .25 miles in length Condition: rough, needs maintenance
Parking lot	WASH2	W2P2	Small grassy parking lot 2-3 vehicles. Parking lot located west side of access road just inside boundary of northern portion Washington#2. Condition: good
Parking lot	WASH2	W2P3	Large grassy parking lot at end of access road beyond parking lot #2. Old landing. Condition: good.
Boundary	WASH2	W2bnd	4.5 miles boundary
Sign	WASH 3	W3S1	Wooden ID sign brown/yellow on brown metal well casing pipe sign standard. "GOOSE EGG MTN. STATE FOREST 983 ACRES STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION" Condition: good
Road	WASH3	W3AR	Approximately .25 mile access road into Washington #3 from Bates Rd. Condition: good
Parking lot	WASH3	W3P1	Small one car pull-off perpendicular to access road near Intersection with Bates Rd. Condition: good
Parking lot	WASH3	W3P2	1-2 car parking / turn around at end of access road. Condition: 4-wheel drive
Boundary	WASH3	W3bnd	3.4 miles boundary
Trail	WASH4	W4T1	Folded Rock Trail 2.4 miles Condition: Needs a minor re-route / routine maintenance.
Trail Register	WASH4	W4Tr1	Trail register on Folded Rock Trail at woodline. Condition: good
Sign	WASH4	W4S1	Wooden ID sign brown/yellow on pressure treated sign standard. "BATTEN KILL STATE FOREST 983 ACRES STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION" Condition: good

Sign	WASH4	W4S2	Wooden ID sign brown/yellow on pressure treated sign standard. "BATTEN KILL STATE FOREST 983 ACRES STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION" Condition: good
Sign	WASH4	W4S3	Wooden trailhead sign brown/yellow. Pressure treated sign standard "NYS Department of Environmental Conservation BATTENKILL STATE FOREST FOLDED ROCK TRAILHEAD Miles 2.61 (ascent 1260') FOLLOW MARKERS" Condition: good
Sign	WASH4	W4S4	Wooden fishing sign brown/yellow on large pressure treated sign standard. "BATTEN KILL SPECIAL TROUT FISHING AREA SPECIAL REGULATIONS APPLY. Condition: good
Gate	WASH4	W4G1	Metal Pipe swing gate with chain support and open and close posts. Associated stop barrier ahead signs. Condition: good
Parking Lot	WASH4	W4P1	Grass / mowed parking area at Folded Rock Trailhead. 10-15 car capacity. Condition: good
Parking Lot	WASH4	W4P2	Gravel fisherman's parking lot on Eagleville Rd. 6-8 car. Brown wooden bollards. Condition: good
Road	WASH4	W4AR1	Old farm path along bottom portion of Folded Rock Trail. Grass / mowed. Condition: good
Road	WASH4	W4AR2	Old farm path through fields along Batten Kill River north of Eagleville Rd. From 313 to river. Grass / mowed. Condition: good
Boundary	WASH4	W4bnd	5.3 miles boundary
Parking Lot	WASH5	W5P1	Parking lot north side Route 313. Grassy / mowed 8-10 car capacity at end of 100' gravel drive. Condition: good
Parking Lot	WASH5	W5P2	2-3 car grass / mowed parking lot south side 313 east. Condition: good
Parking Lot	WASH5	W5P3	1 car parking lot / old farm path driveway south side 313 west. Old farm path gated. Condition: good
Boundary	WASH5	W5bnd	7.8 miles boundary

Appendix IX- Summary of Public Comments

Public Meeting Thursday, May 31, 2001 Cambridge High School

- Public lands are utilized by high school students from local communities for educational studies.
- State land should be available for snowmobile users to access private trails and other areas.
- State land should follow multiple use management with minimal disturbance to the environment.
- Wildlife plantings should be made where appropriate to improve habitat.
- Batten Kill State Forest management priority should be erosion control along the Batten Kill river.
- Pheasant management on open areas of the Batten Kill State Forest should be part of the management plan
- Crop production on adjoining areas of the Batten Kill State Forest should be considered when developing the plan and continued communication with private landowners must be ongoing.
- Property between the Batten Kill and Route 313 on the Batten Kill State Forest should be managed for small game.
- Tree planting on the Batten Kill State Forest should be carried out along the Batten Kill River for shade to keep the water cool and for erosion control.
- Improve wildlife habitat on the Batten Kill State Forest on the south side of Route 313 to reduce car deer collisions. Manage the area for deer, turkey, small game and song birds. Consider planting trees, wildlife shrubs, clover and grass.
- Support DEC ban on motorized vehicles.
- Management of Batten Kill State Forest should not increase pollution along the Batten Kill River.
- Make Batten Kill State Forest accessible to the public by use of trails, public fishing right-of-way and through educational programs.
- Valuable educational sites for Bennington College
- Motorized use of lands is not compatible with traditional use of land. Mainly erosion damage.
- Bentley farm has 25-30 acres of prime agricultural land. SWCD recommends DEC and Public consider keeping agricultural land productive – consistent with multiple use of Batten Kill State forest maintain buffer strip.
- Batten Kill State Forest serve as a riparian model for fish (trout) management. Use for education.

E-mail correspondence (summarized)

1) Agriculture should continue to be part of the landscape but from now on it should be “model agriculture” – a model farm in cooperation with SWCD, the county Ag. Preservation Board, NOFA-NY, or other organization.

2) the forests should be “model woodlots,” managed for native timber species deserving of greater use (like red maple for certain construction timbers) and to prevent invasion by non-native invasives such as shrub honeysuckles. The management effort should be shared with

the forest-owning public, through workshops, a web site, publications, and other means. Perhaps the NY State Forest Owners would be a likely partner.

3) the USFS should be involved in the planning for the Batten Kill State Forest. The GMNF has funding for Batten Kill watershed efforts, both in and off the forest. A partnership with Forest staff and FS regional people could result in huge benefits for the watershed and a new kind of cooperation for public lands in NYS.

4) More specifically, in the very near term the state, in cooperation with VT Fish & Wildlife, should do a stream stability assessment of the Kill and with that data prepare a riparian restoration and management plan for the Bentley streambanks.

Mail Correspondence (summarized)

-Off-road vehicles have been using private land adjacent to the state forest (without permission), have developed trail systems connecting to state lands. Efforts by DEC to exclude off road vehicle use have not proved effective as vehicles can be heard on State land from adjacent private land. Private and public land being used by off road vehicles have experienced erosion and destruction of water control devices on skid trails that have been put to bed. The citizens within this area think they own the forests, both State and private, because they have been using them for years. I now feel that it will be necessary for us to post our property even though the signs are a blight on this beautiful landscape.

- We believe it would be detrimental to the agricultural community to withdraw the acreage of prime farm land along the river portion of the Forest in favor of reforestation.

-Re: The Batten Kill State Forest- It is a great asset to this area & opens up some great deer hunting. The main thing we need is a good size parking area on RTE 313 along with appropriate boundary markers on the forest. I don't believe there should be any roads (other than now exist) to the top. I would like to see it left alone to mature into a final state of growth.

- We are particularly concerned that the current administration's love affair with the privatization approach to public assets will mean more active exploitation of the State owned lands, and that could have a direct impact on the use, value, and enjoyment of our land not to mention our tax bill. Aside from the obvious leasing of State land to timber companies to generate revenue, we have recently read of Champion International's proposal to swap its logged-off parcels in exchange for State land in the Adirondacks, and are concerned that this strategy will be applied generally, including State-owned lands not in the Park (See Post Star article of 8/21/96 on page B6).

As adjacent landowners, we are satisfied with the current use of the State lands for hiking and hunting purposes. Due to noise and traffic impacts, we would not be in favor of more active uses such as logging or more intensive recreational uses. We are also concerned that such uses would significantly increase the risk of fire.

- Concerned about the traffic and road impacts associated with more active uses of the State land. Many of our roads are narrow and winding, particularly those in the mountainous areas of

town. Increasing traffic volume on these roads may create unsafe conditions. Also, the paved roads in town are nothing more than a skim of pavement over dirt. They have not been built to withstand heavy truck traffic. It should be remembered that White Creek's tax base is small due to the vast amount of land that is tax-exempt. We simply do not have the capacity to underwrite the expenses associated with more active, commercial uses of State-owned land; they would represent an extreme financial burden on the residents of White Creek. Any plans made to manage the State-owned lands in White Creek must take these issues into consideration.

-When determining use of Batten Kill State Forest please consider prohibiting use of snowmobiles, ATV's and other fuel powered vehicles to reduce noise, exhaust, erosion and impact on animals and plants.

-Batten Kill State Forest – Suggest that portion of State forest most recently used for agricultural cropland be continued in that use. Preservation of prime farm land is of utmost importance to maintaining a strong agriculture in New York State. Another point for New York State tax payers and the Conservation Department is the realization of income from rental of the agricultural lands.

-We are interested in the conservation development of the state lands. We have hiked some of the Mt. Tom State Forest horse trails and were wondering if we could help by putting in some hiking tags for hiking / bicycling trails?

-Goose Egg State Forest – Opposed to the creation of trails and encouragement of motorized vehicles. Do not appreciate the noise pollution and soil erosion they cause. Against sedimentation of White Creek, a trout spawning habitat. Opposed to cell phone towers, windmills or other “passive” uses that would diminish our property value by destroying the views. In favor of sustainable forest management under supervision of DEC Personnel. Support hiking, snowshoeing, hunting, boundary line marking.

-Batten Kill State Forest – Land should be open to the public for all recreational facilities with sound management policies a priority. The Batten Kill River and its banks should be protected at all costs with bank stabilization a priority. We believe this area in future years can be a training ground for our future generations of youngsters.

-Carters Pond Wildlife Management Area – two concerns 1) Water Quality 2) A viable management plan. After water control structure was placed, no plan was in place.

-Batten Kill State Forest – Primary purpose is access and habitat. Would like to see river side managed for pheasants, rabbits and other small game. Habitat needs to be changed for different cover. Batten Kill River – bank improvement, planting of trees for shade and erosion control, good access point for fisherman. East of 313 – Whitetail clover, selective cutting, tree planting for better habitat for deer, turkeys, song birds.

-Batten Kill State Forest / Goose Egg State Forest – Suggest building a side trail from the Folded Rock Trail along the summit of Goose Egg Ridge.

-Would like trail system put in place for both snowmobile and ATV also hiking and horseback riding and have local clubs help maintain trails. Maintenance costs should be paid from registration fees for snowmobile and ATV which should be raised. Apr 15 – Oct. 14 (ATV, Hikers, Horse) Oct 15 – Dec 15 (Trails closed for hunting season) Dec. 16 – March 31 (Snowmobile only) Apr 1 – Apr 14 (maintenance by clubs)

-Batten Kill State Forest – In favor of DEC renting out flat river bottom land along Batten Kill River for farming. In favor of selective logging across 313 on uplands as part of a program of wildlife habitat enhancement. Not in favor of developing Batten Kill State Forest for camping etc.

-Batten Kill State Forest / Goose Egg State Forest – In support of trail proposal from Folded Rock Trail to Goose Egg Ridge. For Mt. Tom and Chestnut Woods please consider developing additional hiking / skiing trails with adequate parking and maps for public. Concerned about ATV use and urge DEC to prohibit ATV use on foot trails.

-Carters Pond Wildlife Area – This area is used by a large variety of nature lovers and birders and is abused by people with motorized vehicles who leave garbage behind. There are no indications that this is a hunting area, causing unsafe situations for non hunters. Would like to see more oversight of area to increase safety and discourage abuse.

-Batten Kill State Forest – We hope that forest will not be developed but should be designated “Forever Wild” with trailhead and hiking trails only. Batten Kill is experiencing increased pressure each year. It is impossible to fish in peace due to floaters, tubers and boaters of every description and their associated noise and garbage. DEC should not develop forest land along the river through toilets, camping, beach, boat launch.

-Batten Kill State Forest – Hope DEC will continue to allow hiking on Batten Kill State Forest. Concern over Batten Kill River and its increasing use by people in tubes, canoes, and kayaks as well as late night partying near Eagleville Bridge. Additional parking lots would increase pressure on river and increase erosion and destroy river bank vegetation. Concern over bridge vandalism. Against further development near river or bridge.

-Would like sound forestry management practices with emphasis on wildlife habitat enhancement and all practical recreational opportunities. Trails made with public safety, fire prevention, minimum footprint in mind also considering adjacent landowners. Wildlife plantings placed in all areas where possible to encourage snowshoe hare, upland birds, turkeys, pheasants and deer. Batten Kill River should be first priority. Bank stabilization to stop erosion and siltation. New York State should fulfill its obligation to all riparian land owners who gave PFR's. Many people suffer irreparable damage to fields and loss of farmland by lack of state action. Recommend large buffer zone along river to stop erosion. Also as of 11/30/03 we would hope the planting of all commercial crops would cease. This bottomland would seem to be ideally suited for a pheasant habitat program. Native American sites should be protected. Eliminating corn production should reduce deer / car collisions. Mountain side of 313 – open areas could be managed for all sorts of game birds etc. Wooded areas should be managed as forest land and for recreation.

Public Meeting February 10, 2004 Cambridge High School

- Extension of peaked rock trail to goose egg (approx.1.5 miles in length)

- Snowmobile / horse trail connection across Mt. Tom, open limited trails on State Forests to see how things go.

- Better hunting access and wildlife habitat needed on state forests. Mt. Tom radar tower road needs to be opened up and allow hunters better access, move barrier closer to tower, Increase parking space and access near gravel pit on Chestnut woods.
- Batten Kill fields to the west of 313 are prime agricultural soils, should still be used for agriculture, cooperation available from county soil and water.
- keep farm lands along 313, insure state land doesn't increase use of river, limit snowmobile use on state land
- Past crop land should still be used and maintained, it is still agricultural district, income from farming will go to the state, tax money already used to preserve agricultural land.
- need more hunter access
- Historic and Archaeologic areas preserved, maintain agricultural land on west side of 313, property on historic register, Bridge is sustaining damage and should be protected (roof needed to be replaced after damage caused by vandals).
- Plant native species of trees, no logging on steep slopes, example logging on non sensitive areas, keep existing cropland, educational use of steep slope and hill areas.
- Schenectady chapter ADK - scenic area improved at end of peaked rock trail (remove some trees).
- adjoining landowners should be consulted before recreational trails are re-opened.

Appendix X - Glossary of Terms

Access trails - Temporary, unpaved roads which do not provide all weather access within the unit. They are not designed for long term and repeated use by heavy equipment. These corridors were originally constructed for the seasonal removal of forest products by skidding to landings or other staging areas. Constructed according to best management practices, these trails may be used to support other management objectives such as recreational access corridors. Maintenance is limited to activities which minimally support seasonal access objectives. (T)

Aesthetics - Forest value, rooted in beauty and visual appreciation and providing a distinct visual quality. (L)

Age Class - Trees of a similar size originating from a single natural event or regeneration activity. see cohort. (H)

All-Aged - A condition of a forest or stand that contains trees of all or almost all age classes. (D)

Allowable Cut - The amount of timber considered as available for cutting during a specified planned period of operation. (F)

Basal Area - The cross sectional area, measured in square feet, of a single stem, including the bark, measured at breast height (4.5 ft above the ground). (H)

Basal Area/Acre - A measure of forest density, the sum total of the basal areas of all trees on one acre. (L)

Best Management Practices - A practice or a combination of practices that are designed for the protection of water bodies and riparian areas, and determined to be the most effective and practicable means of controlling point and non-point source water pollutants. (H)

Biomass - the weight of organic matter in a tree, stand, or forest, in units such as living or dead weight, wet or dry weight, etc. (H)

Biological Diversity (Biodiversity) - The variety of life on earth. The variety of things and the variability found within and among them. Biodiversity also encompasses processes –both ecological and evolutionary that allow organisms to keep adapting and evolving. Includes genetic diversity (unique combinations of genes found within and among organisms), species diversity (numbers of species in an area), ecological diversity (organization of species into natural communities and the interplay of these communities with the physical environment – interactions among organisms and between organisms and their environment is the key here), Landscape diversity (refers to the geography of different ecosystems across large areas and the connections between them. (R)

Blowdown - Tree or trees felled or broken off by wind. (H)

Browse - Portions of woody plants including twigs, shoots, and leaves consumed by animals such as deer. (L)

Buffer Zone / Buffer Strip - A vegetation strip or management zone of varying size, shape, and character maintained along a stream, lake, road, recreation site, or different vegetative zone to mitigate the impacts of actions on adjacent lands, to enhance aesthetic values, or as a best management practice. (H)

Cavity Tree / Den Tree - A tree containing an excavation sufficiently large for nesting, dens or shelter; tree may be alive or dead. (L)

Clear Cut - A harvesting and regeneration technique that removes all the trees, regardless of size, on an area in one operation. This practice is done in preparation of the re-establishment of a new forest through reforestation, stump sprouting, or changing habitats, i.e., from forest to brush or grass cover. (A) (L)

Climax Forest - An ecological community that represents the culminating stage of a natural forest succession for its locality / environment. (H)

Coarse Woody Debris (CWD)- Any piece(s) of dead woody material on the ground in forest stands or in streams. (H)

Cohort - A population of trees that originate after some type of disturbance. The disturbance makes growing space available. (L)

Community - An assemblage of plants and animals interacting with one another, occupying a habitat, and often modifying the habitat; a variable assemblage of plant and animal populations sharing a common environment and occurring repeatedly in the landscape. (M)

Conversion - A change from one silvicultural system to another or from one tree species to another. (H)

Coppice - Stems originating primarily from vegetative reproduction; e.g. the production of new stems from stumps, roots or branches. see low forest. (H)

Corridor - A linear strip of land identified for the present or future location of a designed use within its' boundaries. *Examples:* recreational trails, transportation or utility rights-of-way. When referring to wildlife, a corridor may be a defined tract of land connecting two or more areas of similar management or habitat type through which a species can travel from one area to another to fulfill any variety of life-sustaining needs. (H)

Cover type - The plant species forming a majority of composition across a given area. (H)

Crown - the part of a tree or woody plant bearing live branches and foliage. (H)

Crown Class - A category of tree based on its crown position relative to those of adjacent trees. Examples:

Dominant - a tree whose crown extends above the general level of the main canopy and receives full light from above and partial to full light from the sides.

co-dominant - a tree whose crown helps to form the general level of the main canopy and receives full light from above and comparatively little from the sides.

Intermediate - a tree whose crown extends into the lower portion of the main canopy and receives little direct light from above and none from the sides.

suppressed/overtopped - a tree whose crown is completely overtopped by the crowns of one or more neighboring trees and receives little or no direct sunlight. (H)

Crown Closure - The point at which the vertical projections of crown perimeters within a canopy touch. (H)

Cull - Any item of production, e.g., trees, logs, lumber, or seedlings, rejected because it does not meet certain specifications of usability or grade. (H)

Cultural Resources - Significant historical or archaeological assets on sites as a result of past human activity which are distinguishable from natural resources. (L)

Cutting Interval - The number of years between harvest or regeneration cuts in a stand. (L)

Deciduous - Tree and shrub species that lose their foliage in autumn. (L)

Defoliation - The partial or complete loss of foliage, usually caused by an insect, disease, or Drought. (L)

Diameter Breast Height (DBH) - The diameter of the stem of a tree (outside bark) measured at breast height (4.5 ft) from the ground. (H)

Diameter-Limit Cut - A timber harvesting treatment in which all trees over a specified diameter may be cut. Diameter-limit cuts often result in high-grading. (A)

Disturbance - An event that causes significant change from the normal pattern in an ecosystem. A disturbance can be endogenous, or part of the developmental process that weakens, for example, a tree, making it susceptible to physical or biological forces. Disturbance can also be exogenous, or external to the developmental process, such as intense winds or fires. (B) (C)

Disturbance Regime - Describes a repeating pattern of disturbance in a community or across a landscape, such as seasonal flooding, daily tidal flooding, insect outbreaks, periodic fires, windthrow, erosion, and ice scouring/ice storms. (B) (C)

Early Successional Wildlife Species - Animal species which require early vegetative stages such as grass, shrubs or aspen. (L)

Ecosystem - A spatially explicit, relatively homogeneous unit of the earth that includes all interacting organisms and components of the abiotic environment within its boundaries - *note* an ecosystem can be of any size, e.g., a log, pond, field, forest or the earth's biosphere. (H)

Ecosystem Management - The appropriate integration of ecological, economic, and social factors in order to maintain and enhance the quality of the environment to best meet our current and future needs. Means keeping natural communities of plants, animals, and their environments healthy and productive so people can benefit from them year to year. (G)

Edge - The more or less well-defined boundary between two or more elements of the environment, e.g., a field adjacent to a woodland or the boundary of different silvicultural treatments. (H)

Endangered Species - Any species of plant or animal defined through the Endangered Species Act of 1976 as being in danger of extinction throughout all or a significant portion of its range, and published in the Federal Register. (H)

Even-Aged - A class of forest or stand composed of trees of about the same age. The maximum age difference is generally 10-20 years. (U)

Even-Aged System - A program of forest management directed to the establishment and maintenance of stands of trees having relatively little (10-20 yrs) variation in ages. The guidelines to be applied in using this system at all stages of tree development are uniquely different from the uneven-aged system. (L)

Exotic - Any species that is not native to a particular geographic region or ecosystem. (V)

Flood Plain - The level or nearly level land with alluvial soils on either or both sides of a stream or river that is subject to overflow flooding during periods of high water level. (H)

Forest - An assemblage of trees and associate organisms on sites capable of maintaining at least 60% crown closure at maturity. (L)

Forestry - The profession embracing the science, art, and practice of creating, managing, using, and conserving forests and associated resources for human benefit and in a sustainable manner to meet desired goals, needs, and values. (H)

Forest Management - The application of business methods and technical forestry principles to the operation of a forest property. (B) (Q)

Forest Succession - The gradual replacement of one community of plants by another.
Example: an area of open grass becoming shrub which then becomes shade intolerant trees (pioneer species) and finally climax forest of mostly shade tolerant trees. (L)

Forest Type - A group of stands of similar character as regards composition and development due to given physical and biological factors, by which they may be differentiated from other groups of stands. (B) (Q)

Forested Wetland - An area characterized by woody vegetation where soil is periodically saturated with or covered by water. (L)

Fragipan - A dense and brittle layer of soil. Its hardness results mainly from extreme density or compactness rather than from high clay content. The material may be dense enough to restrict root, nutrient, and water penetration. (L)

Fragmentation - A biophysical process of breaking forests into dispersed blocks separated by non forest, or in some areas, dispersed blocks of mature forest separated by young forest. (N)

Gaps - Communities, habitats, successional stages, or organisms which have been identified as lacking in the landscape. (L)

Geocaching - A high-tech, hide and seek, outdoor activity for utilizing the Global Positioning System (GPS) where an item is "cached" on the landscape. (L)

Grassland - Land on which the vegetation is dominated by grasses, grasslike plants, or forbs. (H)

Green Tree Retention - The practice of retaining live trees after a release cut. This practice creates higher levels of structural diversity providing varied wildlife habitat and future downed wood. The residual overstory trees also moderate the microclimate of the site and provide continuity of habitat for plant and animal species between uncut forest areas. These residual trees are left through the next rotation. (L)

Habitat - The geographically defined area where environmental conditions (e.g., climate, topography, etc.) meet the life needs (e.g., food, shelter, etc.) of an organism, population, or community. (A)

Harvest /Cut/ Logging - Altering a forest by removing trees and other plants so as to control the composition and form of forest stands. (O)

Haul roads - Permanent, unpaved roads which are not designed for all weather travel, but may have hardened or improved surfaces with artificial drainage. They are constructed according to best management practices primarily for the removal of forest products, providing limited access within the unit by log trucks and other heavy equipment. These roads may or may not be open for public motor vehicle use, depending on management priorities and objectives. They may serve as recreational access corridors, but are not maintained according to specific standards or schedules. The design standards for these roads are below those of the Class B access roads as provided in the Unpaved Forest Road Handbook. (S) (T)

Header - See Log Landing.

Herbicide - A chemical used for killing or controlling the growth of plants. (H)

High Forest - A forest originating mainly from natural reproduction. (O)

High-Grading - The removal of the most commercially valuable trees (high-grade trees), often leaving a residual stand composed of trees of poor condition or species composition. (H)

Improvement Cut - The removal of less desirable trees of any species in a stand of poles or larger trees, primarily to improve composition and quality. (H)

Indicator Species - Species with such specialized ecological needs that they can be used for assessing the quality, condition, or extent of an ecosystem on the basis of their presence and density, or the accumulation and effect of materials in their tissues. (A)

Intermediate Treatment - Any silvicultural treatment designed to enhance growth, quality, vigor, and composition of the stand after establishment or regeneration and prior to final harvest. (H)

Invasive - Species that, after they have been moved from their native habitat to a new location, or following disturbance in their native habitat, spread on their own, displacing other species, and sometimes causing environmental damage. (B)

Large Poles - Trees 9-11 inches diameter at breast height. (L)

Large Sawtimber - Trees 18 inches or greater diameter at breast height. (L)

Log Landing / Log Deck - A cleared area in the forest to which logs are skidded and are temporarily stored before being loaded onto trucks for transport. (L)

Low Forest - A forest produced primarily from vegetative regeneration, i.e. coppice. (H)

Mast - All fruits of trees and shrubs used as food for wildlife. Hard mast includes nut-like fruits such as acorns, beechnuts, and chestnuts. Soft mast includes the fleshy fruits of black cherry, dogwood and serviceberry. (A)

Mature Stand - Pertaining to an even-aged stand that has attained most of its potential height growth, or has reached merchantability standards -*note* within uneven-aged stands, individual trees may become mature but the stand itself consists of trees of diverse ages and stages of development. (H)

Medium Sawtimber - Trees 15-17 inches diameter at breast height. (L)

Mesic - Of sites or habitats characterized by intermediate moisture conditions, i.e., neither decidedly wet nor dry. (H)

Multiple Use - A strategy of land management fulfilling two or more objectives, e.g. forest products removal and recreation. (L)

Multiple Use Area - Lands acquired pursuant to Article 15, Section 15.01 (b) of the Parks and Recreation Land Acquisition Bond Act. Multiple Use Areas are acquired to provide additional opportunities for outdoor recreation, including public camping, fishing, hunting, boating, winter sports, and, wherever possible, to also serve multiple purposes involving the conservation and development of natural resources, including the preservation of scenic areas, watershed protection, forestry and reforestation. (L)

Native - Species believed to have existed in a particular geographic region or ecosystem of the Northeast prior to European settlement and subsequent large-scale alteration of the landscape. The state reference for native species is Mitchell. 1997 Revised Checklist of New York State Plants. (B)

Natural Area - These areas are not managed for the production of wood products. A physical and biological area left in a natural condition, usually without direct human intervention, to attain and sustain a climax condition, the final stage of succession. (H) (L)

Natural Regeneration - The establishment of a forest stand from natural seeding, sprouting, suckering or layering. (H)

Non-Commercial Forest - Areas of a forest permanently inoperable due to conditions such as inaccessibility, altitude and poor growing conditions. Meyer, Arthur H. and Others. 1961. Forest Management. New York: Ronald Press. (B)

Neo-Tropical Migratory Birds - Bird species which migrate between the Northern and Southern hemispheres. These species represent more than 50% (340 of the 600 species) of North American birds. (L)

Northern Hardwood Forest Type - A forest type usually made up of sugar and red maple, American beech, yellow birch, and to a lesser extent black cherry and white ash. This type represents about 70 percent of all forests in New York State. (A)

Old Growth Forest - The definition of "Old Growth Forest" involves a convergence of many different, yet interrelated criteria. Each of these criteria can occur individually in an area that is not old growth, however, it is the presence of all of these factors that combine to differentiate "Old Growth Forest." from other forested ecosystems. These factors include: An abundance of late successional tree species, at least 180 - 200 years of age in a contiguous forested landscape that has evolved and reproduced itself naturally, with the capacity for self perpetuation, arranged in a stratified forest structure consisting of multiple growth layers throughout the canopy and forest floor, featuring (1) canopy gaps formed by natural disturbances creating an uneven canopy, and (2) a conspicuous absence of multiple stemmed trees and coppices. Old growth forest sites typically (1) are characterized by an irregular forest floor containing an abundance of coarse woody materials which are often covered by mosses and lichens; (2) show limited signs of human disturbance since European settlement; and (3) have distinct soil horizons that include definite organic, mineral, illuvial accumulation, and unconsolidated layers. The understory displays well developed and diverse surface herbaceous layers. (B)

Overstory - That portion of the trees in a forest forming the upper or uppermost canopy layer. (H)

Parcelization - The subdivision of land into smaller ownership blocks. This intrudes new features and activities into the forest and changes its character but does not necessarily fragment it in biophysical terms. Richards, N.A., Forest Resources of Central NY, NY Forest Owner 9/93 (B)

Pioneer - A plant capable of invading bare sites (newly exposed soil) and persisting there or colonizing them until supplanted by successional species. (H)

Plantation - A stand composed primarily of trees established by planting or artificial seeding - a plantation may have tree or understory components that have resulted from natural regeneration. (H)

Poletimber - Trees that are generally 6-11 inches diameter at breast height. (L)

Protection Forest - Forest land excluded from most active management including wood product management, oil and gas exploration and development, and some recreational activities to protect sensitive sites. These sites most often include steep slopes, wet woodlands and riparian zones along stream corridors. (L)

Public Forest Access Roads - Permanent, unpaved roads which may be designed for all-weather use depending upon their location, surfacing and drainage. These roads provide primary access for administration and public use within the unit. The design standards for these roads are those of the Class A and Class B access roads as provided in the Unpaved Forest Road Handbook (8/74). As a general guideline, sufficient access is typically achieved when 1 mile of PFAR is developed for each 500 acres of state land, and no position within the unit lies more than 1 half mile from a PFAR or public highway. (S) (T)

Public Roads - Permanent, paved or unpaved roads primarily designed for motor vehicle travel

which are maintained by federal, state or local government. These roads may. Or may not provide year round access. (T)

Pulpwood - Low grade or small diameter logs used to make paper products, wood chips, etc. (L)

Recreational Trail - Unpaved recreational corridors which do not provide all weather access within a unit, and are designed to achieve specific recreational access objectives. Constructed according to best management practices, and following accepted regional standards for design, these trails may be used to support multiple types of seasonal recreation access. Maintenance is limited to activities which minimally support the access objectives and design. (T)

Reforestation - The re-establishment of forest cover by natural or artificial means. (A)

Regeneration - Seedlings or saplings of any origin. The Society of American Foresters. 1958. Forest Terminology, 3rd edition. Washington, DC. (B)

Release - 1.) A treatment designed to free trees from undesirable, usually overtopping, competing vegetation. 2.) A treatment designed to free young trees not past the sapling stage from undesirable competing vegetation that overtops or closely surrounds them. (K)

Residual Stand - A stand composed of trees remaining after any type of intermediate harvest. (H)

Rights-Of-Way - Permanent, paved or unpaved roads which allow the Department access to State Forest properties while crossing private land, or, corridors across State Forests allowing access to private in-holdings. (T)

Riparian zone - Areas of transition between terrestrial and aquatic ecological systems. They are characterized as having soils and vegetation analogous to floodplains, or areas transitional to upland zones. These areas help protect the water by removing or buffering the effects of excessive nutrients, sediments, organic matter, pesticides, or pollutants. (A)

Rotation - The period of years between stand establishment and timber harvest as designated by economic or natural decisions. (B)

Salvage Cutting - Recovery of the values represented by damaged trees or stands. Smith, David M.. 1962, The Practice Of Silviculture. New York: John Wiley & Sons. (B)

Sapling - A small tree, usually defined as being between 1 and 5 inches diameter at breast height. (L)

Sawtimber - Trees that are generally 12 inches and larger diameter at breast height. (L)

Second Growth - The forests re-established following removal of previously unharvested or old - growth stands. Most northeastern forests are either second or third growth. (A)

Seedling - A young tree originating from seed that is less than 4 feet tall. (A)

Seedling/Sapling - Trees less than 6 inches diameter at breast height. (L)

Seed Tree Cut/Method - The removal of the mature timber in one cutting, except for a small number of trees left singly, or in small groups, as a source of seed for natural regeneration. (O)

Significant Natural Community - Communities that are either rare in New York State or are determined by New York Natural Heritage Program staff to be outstanding examples of more common natural communities. (B)

Selective Cut - High Grade (Replaces Selective Thinning) - A type of exploitation cutting that removes only certain species (a) above a certain size, (b) of high value; Known silvicultural requirements and/or sustained yields being wholly or largely ignored or found impossible to fulfill. Society of American Foresters. Ford-Robertson, F. C., editor. 1971. Terminology of Forest Science, Technology, Practice and Products. Cambridge: England. (B)

Shade Tolerance - The ability of a tree species to germinate and grow at various levels of shade.

Shade tolerant. having the capacity to compete for survival under shaded conditions.

Shade intolerant. having the capacity to compete for survival only under direct sunlight conditions; light demanding species. (H) (L)

Shelterwood Cut/Method - A regeneration action designed to stimulate reproduction by implementing a series of cuts over several years that will gradually remove the overstory trees. Gradual reduction of stand density protects understory trees and provides a seed source for stand regeneration. (A)

Shrub (replaces Brush) - Shrubs and stands of scrubby tree species that do not reach a merchantable size. The Society of American Foresters. 1958. Forest Terminology, 3rd edition. Washington, DC. (B)

Silviculture - The application of art, science and practice to influence long term forest development.

Even aged Silviculture - A system for maintaining and regenerating forest stands in which trees are approximately the same age (cohort). This system favors shade intolerant species such as aspen, white ash and black cherry.

Uneven aged Silviculture - A system for maintaining and regenerating forest stands with at least three distinct age classes (cohorts). this system favors shade intolerant species such as sugar maple, hemlock and beech. Uneven aged silviculture creates a stratified stand structure with trees of different heights represented in all levels of the forest canopy. (B)

Site - The area in which a plant or forest stand grows, considered in terms of its environment, particularly as this determines the type and quality of the vegetation the area can support. (H)

Site Index - A species-specific measure of actual or potential forest productivity, expressed in terms of the average height of trees included in a specified stand component at a specified age. (H)

Site Preparation - Hand or mechanized manipulation of a site, designed to enhance the success of regeneration. (H)

Site Quality - The sum of soil and topographic factors of a particular place for growth of a particular species. (B)

Skid Trail - A temporary or permanent trail used to skid or forward felled trees from the stumps to the log landing. (L)

Small Poles - Trees 6-8 inches diameter at breast height. (L)

Small Sawtimber - Trees 12-14 inches diameter at breast height. (L)

Snags - Standing, dead trees, with or without cavities; function as perches, foraging sites and/or a source of cavities for dens, roosting and/or nesting for wildlife. (L)

Species Richness - The number of different species present within an area. (B) (Q)

Stand - A contiguous group of trees sufficiently uniform in species composition, arrangement of age classes, and condition to be a homogeneous and distinguishable unit. (O) (B)

Stand Structure - The horizontal and vertical distribution of components of a forest stand including the height, diameter, crown layers, and stems of trees, shrubs, herbaceous understory, snags, and down woody debris. (H)

Stand Treatment - Work done in a stand which is directed towards the management of the stand. (L)

State Forest - The collective term applied to lands administered by the Division of Lands and Forests which are located outside the forest preserves. State forests include acreage acquired and classified as Reforestation Areas, Multiple Use Areas and Unique Areas. (L)

State Reforestation Area - Lands acquired by the Department pursuant to Title 3 Article 9-0501 of the Environmental Conservation Law. Reforestation Areas are adapted for reforestation and for the establishment and maintenance thereon of forests for watershed protection, the production of timber and other forest products, and for recreation and kindred purposes. (L)

Stocking - The number of trees per unit area in relation to the desired number for optimum growth and management. Guides and tables have been developed that illustrate the optimum number of trees per acre based on the average diameter. (L)

Succession - The natural series of replacements of one plant community (and the associated fauna) by another over time and in the absence of disturbance. (A)

Sustainable Forest Management - Management that maintains and enhances the long-term health of forest ecosystems for the benefit of all living things, while providing environmental, economic, social and cultural opportunities for present and future generations. (A)

Sustained Yield - The achievement and maintenance in perpetuity of a reasonable regular periodic output of the various renewable resources without impairment of the land's productivity. (E)

Temporary Revocable Permit - A Department permit which authorizes the use of state land for a specific purpose for a prescribed length of time. (L)

Thinning - Intermediate cuttings that are aimed primarily at controlling the growth of stands through adjustments in stand density. (O) (B)

Threatened Species - A species likely to become endangered in the foreseeable future, throughout all or a significant portion of its range, unless protected. (A)

Timber Stand Improvement (TSI) - Pre-commercial silvicultural treatments, intended to regulate stand density and species composition while improving wood product quality and fostering individual tree health and vigor, through the removal of undesirable trees. (L)

Understory - The smaller vegetation (shrubs, seedlings, saplings, small trees) within a forest stand, occupying the vertical zone between the overstory and the herbaceous plants of the forest floor. (A)

Uneven-Aged Group Selection - A type of uneven-aged forest management used to create openings in the forest canopy. Trees are removed and new age classes are established in small groups. (L)

Uneven-Aged System - A planned sequence of treatments designed to maintain and regenerate a stand with three or more age classes. (H)

Uneven-Aged Stand/Forest - A stand with trees of three or more distinct age classes, either intimately mixed or in small groups. (H)

Unique Area - Lands acquired pursuant to Sections 45-0101, 51-0701, 51-0705, 54-0303, 56-0307 & 49-0203 of the Environmental Conservation Law. (L)

Watershed - A region or area defined by a network of stream drainage. A watershed includes all the land from which a particular stream or river is supplied. (L)

Water Quality Classes - A system of classification in ECL Article 17 which presents a ranked listing of the state's surface waters by the letters AA, A, B, C or D according to certain quality standards and specifications. AA is the highest quality rank and has the greatest suitability for human usage. (L)

Wetland - A transitional area between aquatic and terrestrial ecosystems that is inundated or saturated for periods long enough to produce hydric soils and support hydrophytic vegetation. (H)

Wetland Classes - A system of classification set forth in ECL Article 24, section 664.5 which ranks wetland I through IV based upon wetland functions and benefits, I being the highest rank. (L)

Wildlife Management Areas (WMA)- Lands acquired by the Department pursuant to Title 21 Section 11- 2103 of the Environmental Conservation Law. Wildlife Management Areas are managed by the Division of Fish, Wildlife and Marine Resources for the purpose of establishing and maintaining public hunting, trapping and fishing grounds. (L)

Windthrow - Trees that have been broken, uprooted, or felled by strong winds. (L)

Appendix XI - Maps

Carters Pond Wildlife Management Area – Wetlands, Hydrology and Infrastructure

Batten Kill State Forest – Wetlands, Hydrology and Infrastructure

Goose Egg State Forest – Wetlands, Hydrology and Infrastructure

Eldridge Swamp State Forest – Wetlands, Hydrology and Infrastructure

Chestnut Woods State Forest – Wetlands, Hydrology and Infrastructure

Mt. Tom State Forest – Wetlands, Hydrology and Infrastructure

Carters Pond Wildlife Management Area – Forest Stands

Batten Kill & Goose Egg State Forests – Forest Stands

Eldridge Swamp State Forest – Forest Stands

Chestnut Woods State Forest – Forest Stands

Mt. Tom State Forest – Forest Stands

Carters Pond Wildlife Management Area – Soils

Batten Kill State Forest – Soils

Goose Egg State Forest – Soils

Eldridge Swamp State Forest – Soils

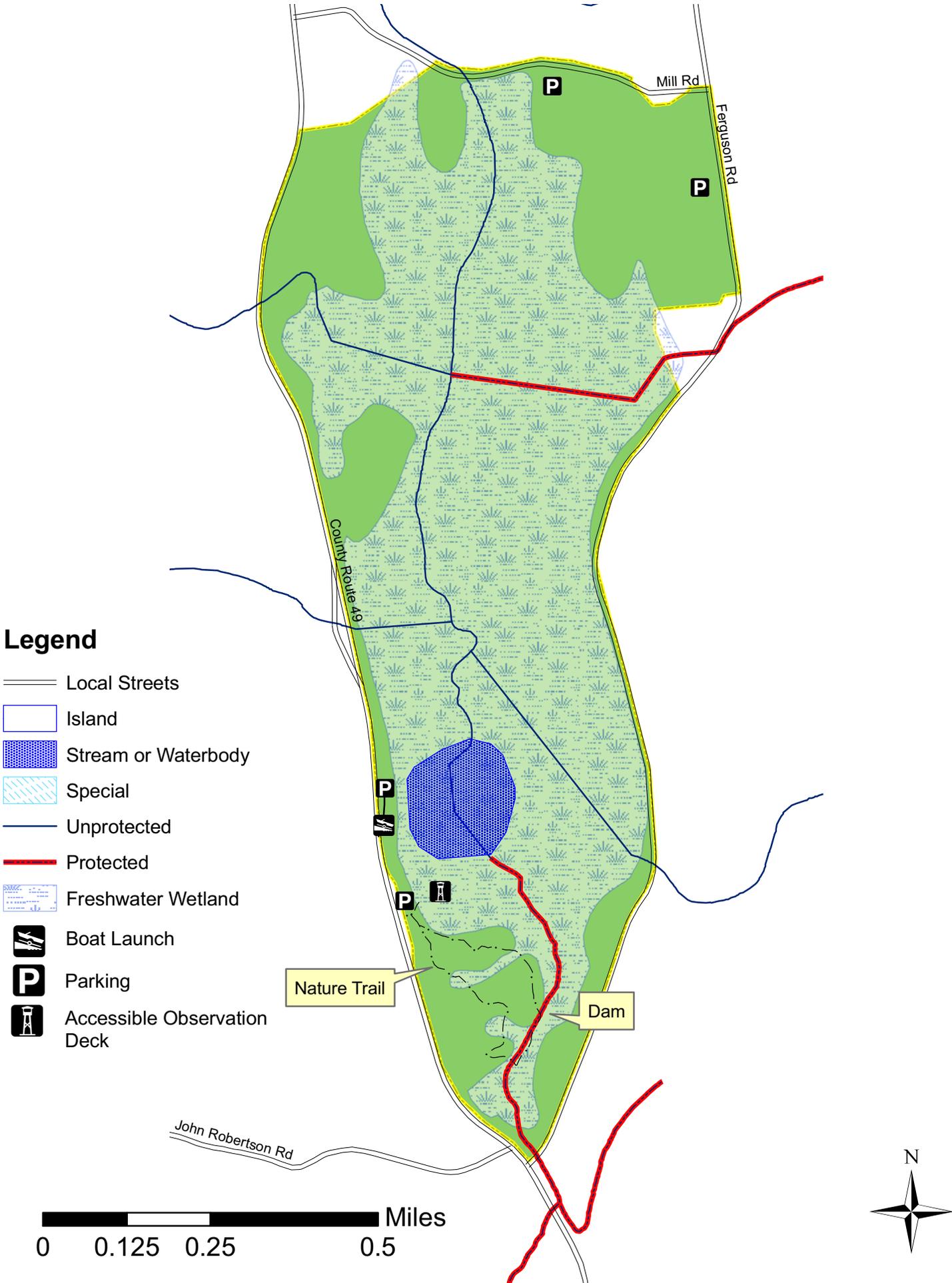
Chestnut Woods State Forest – Soils

Mt. Tom State Forest – Soils

Eldridge Swamp State Forest – MAPPWD Routes

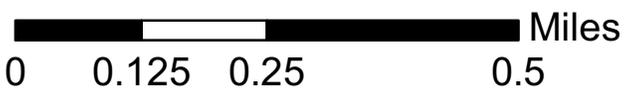
Carters Pond Wildlife Management Area

Wetlands, Hydrology and Infrastructure



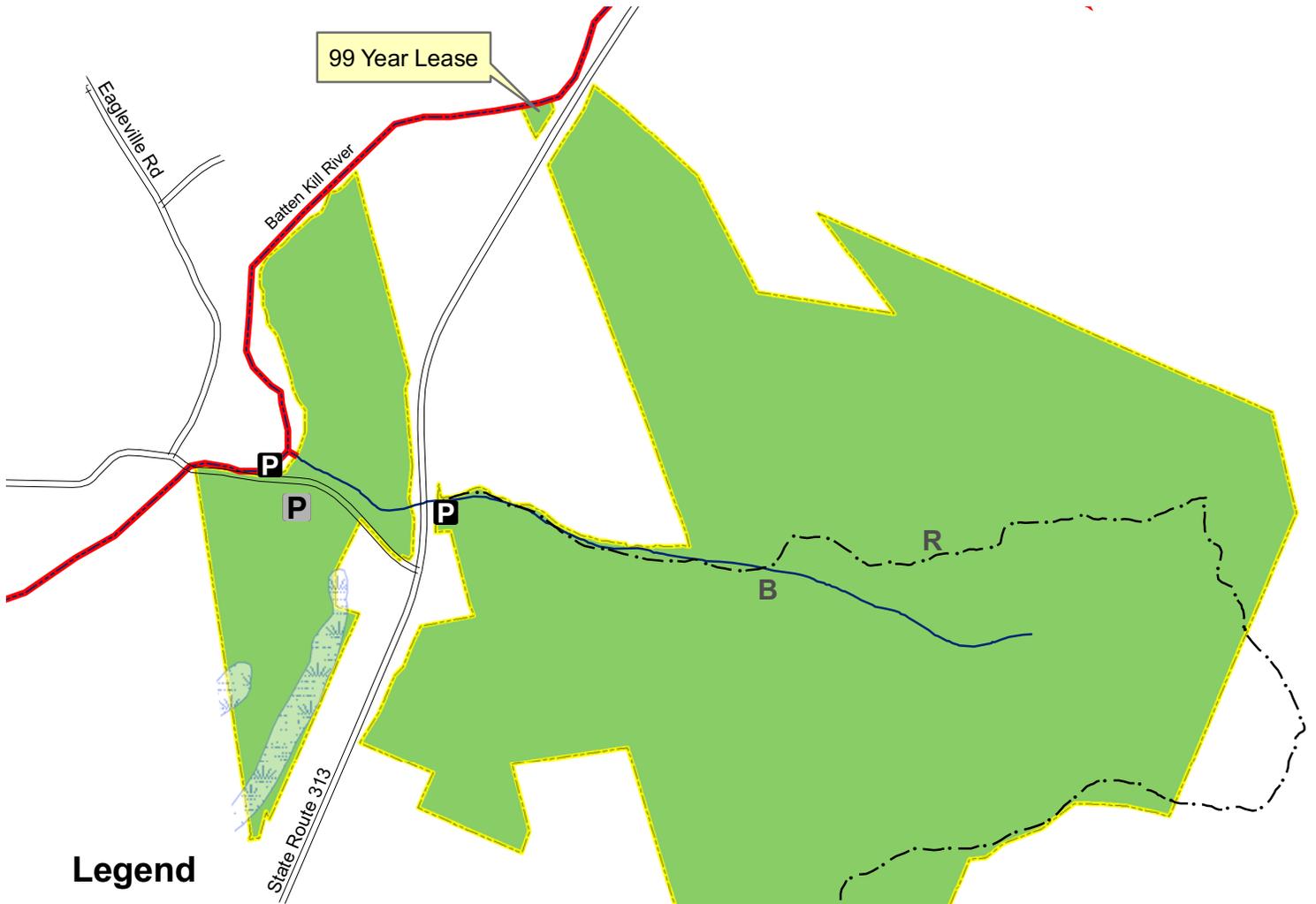
Legend

-  Local Streets
-  Island
-  Stream or Waterbody
-  Special
-  Unprotected
-  Protected
-  Freshwater Wetland
-  Boat Launch
-  Parking
-  Accessible Observation Deck



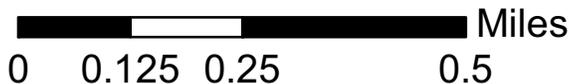
Batten Kill State Forest

Wetlands, Hydrology and Infrastructure



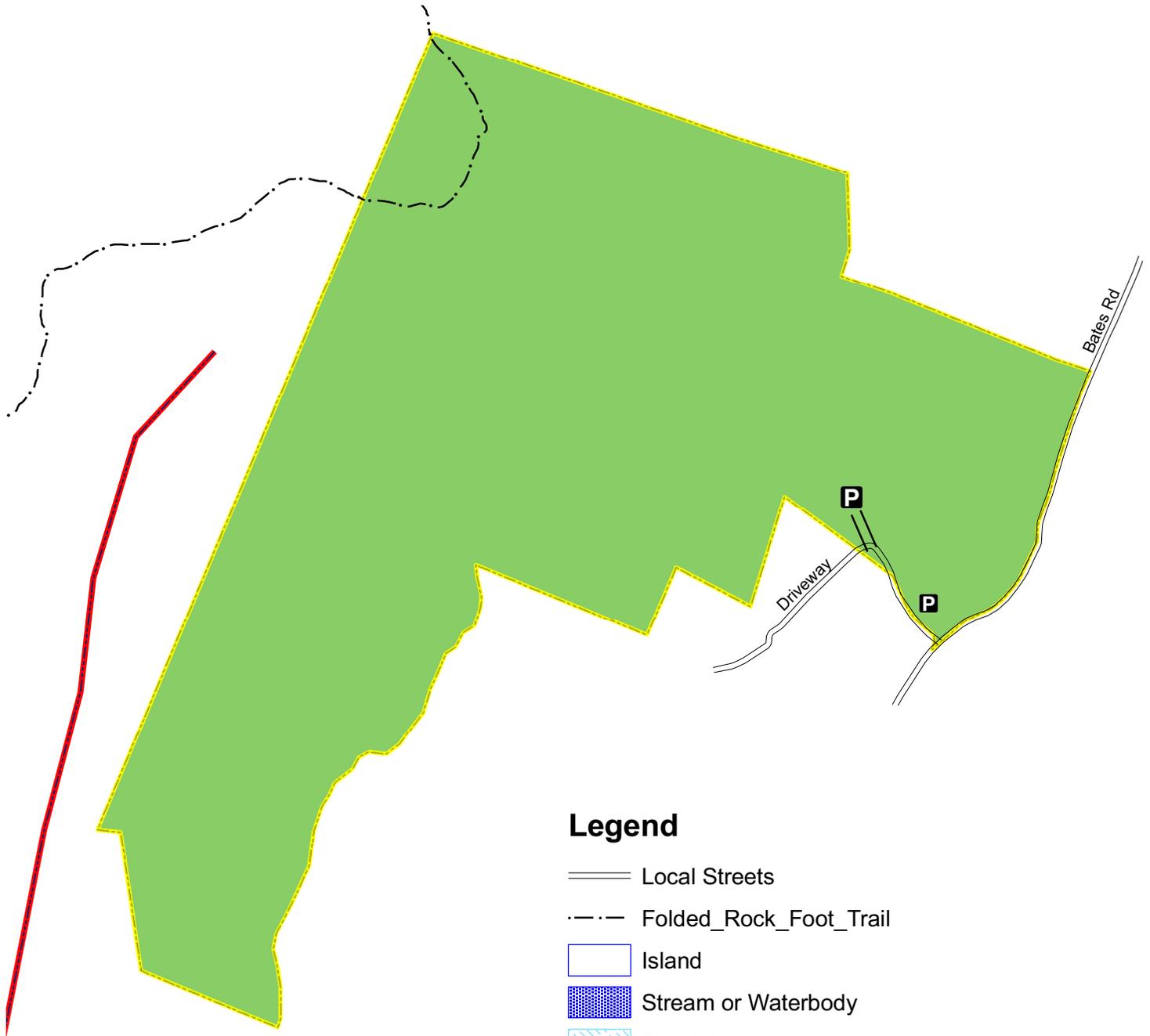
Legend

-  Local Streets
-  Island
-  Stream or Waterbody
-  Special
-  Unprotected
-  Protected
-  Freshwater Wetland
-  Folded_Rock_Foot_Trail
-  Parking
-  Proposed Parking
-  Proposed Foot Trail Bridge
-  Approximate Location Proposed Reroute



Goose Egg State Forest

Wetlands, Hydrology and Infrastructure



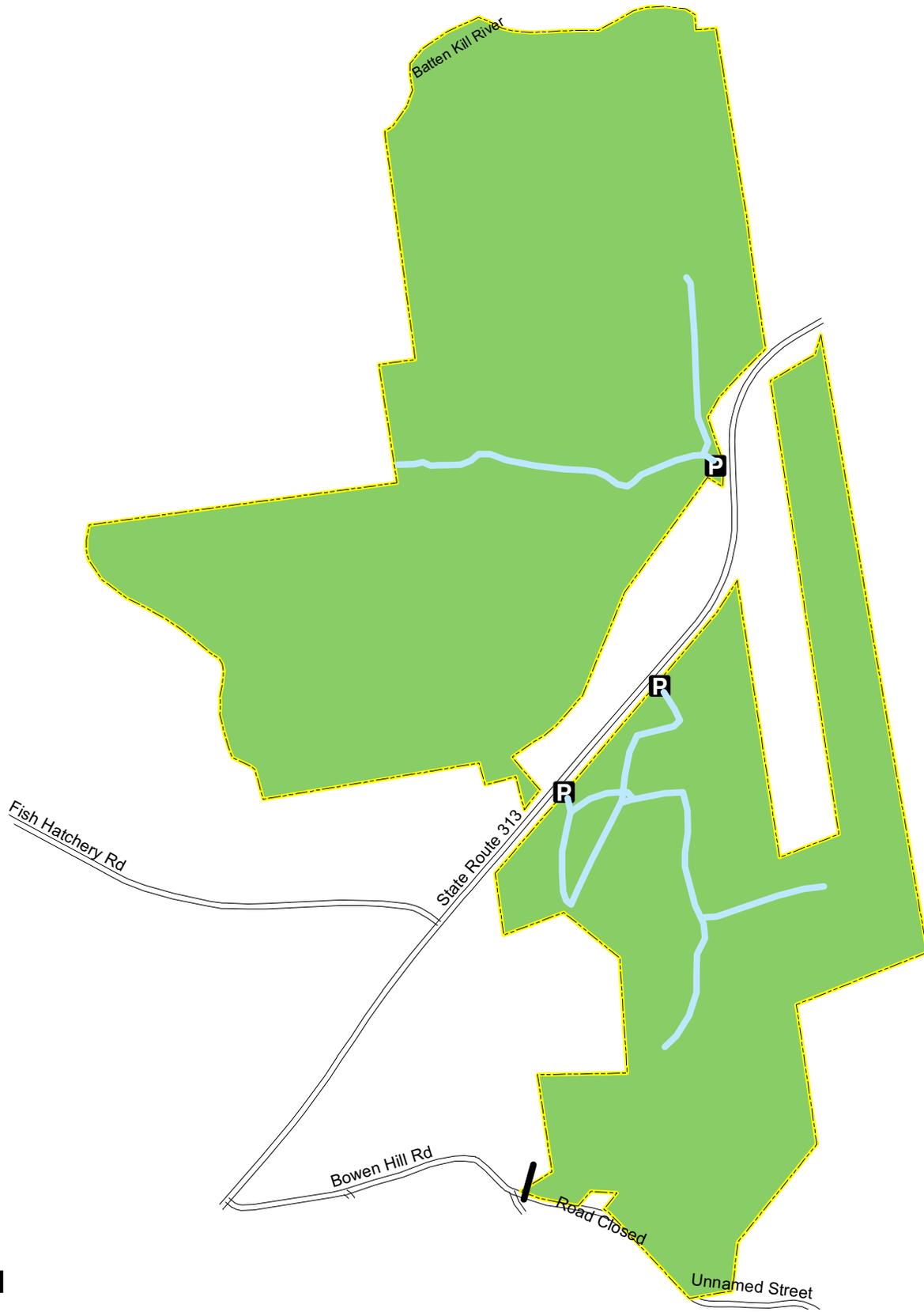
Legend

- Local Streets
- Folded_Rock_Foot_Trail
- Island
- Stream or Waterbody
- Special
- Unprotected
- Protected
- Freshwater Wetland
- P Parking



Eldridge Swamp State Forest

MAPPWD motor vehicle access routes



Legend

Local Streets

P Parking

MAPPWD access route



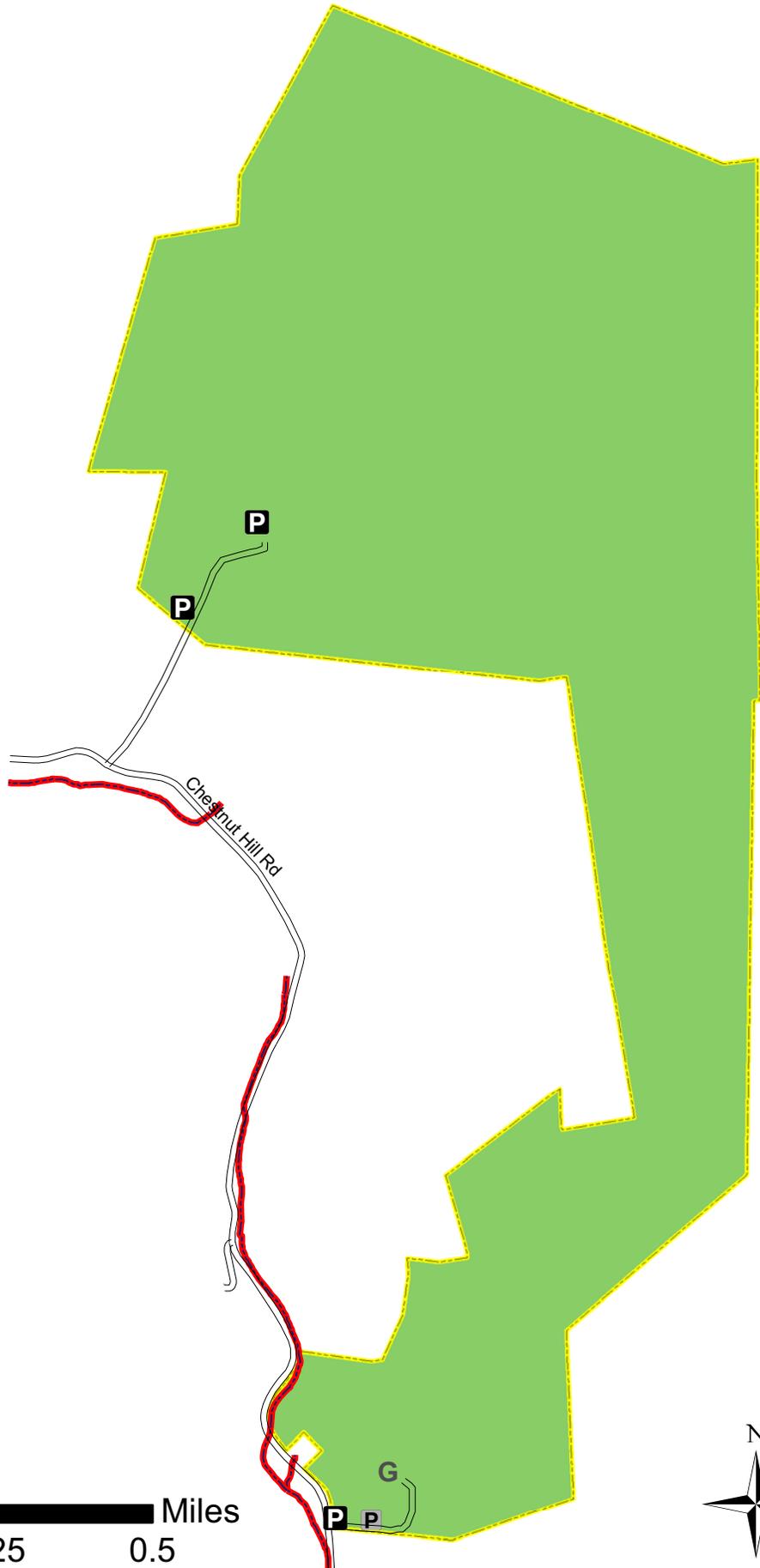
Chestnut Woods State Forest

Wetlands, Hydrology and Infrastructure

Legend

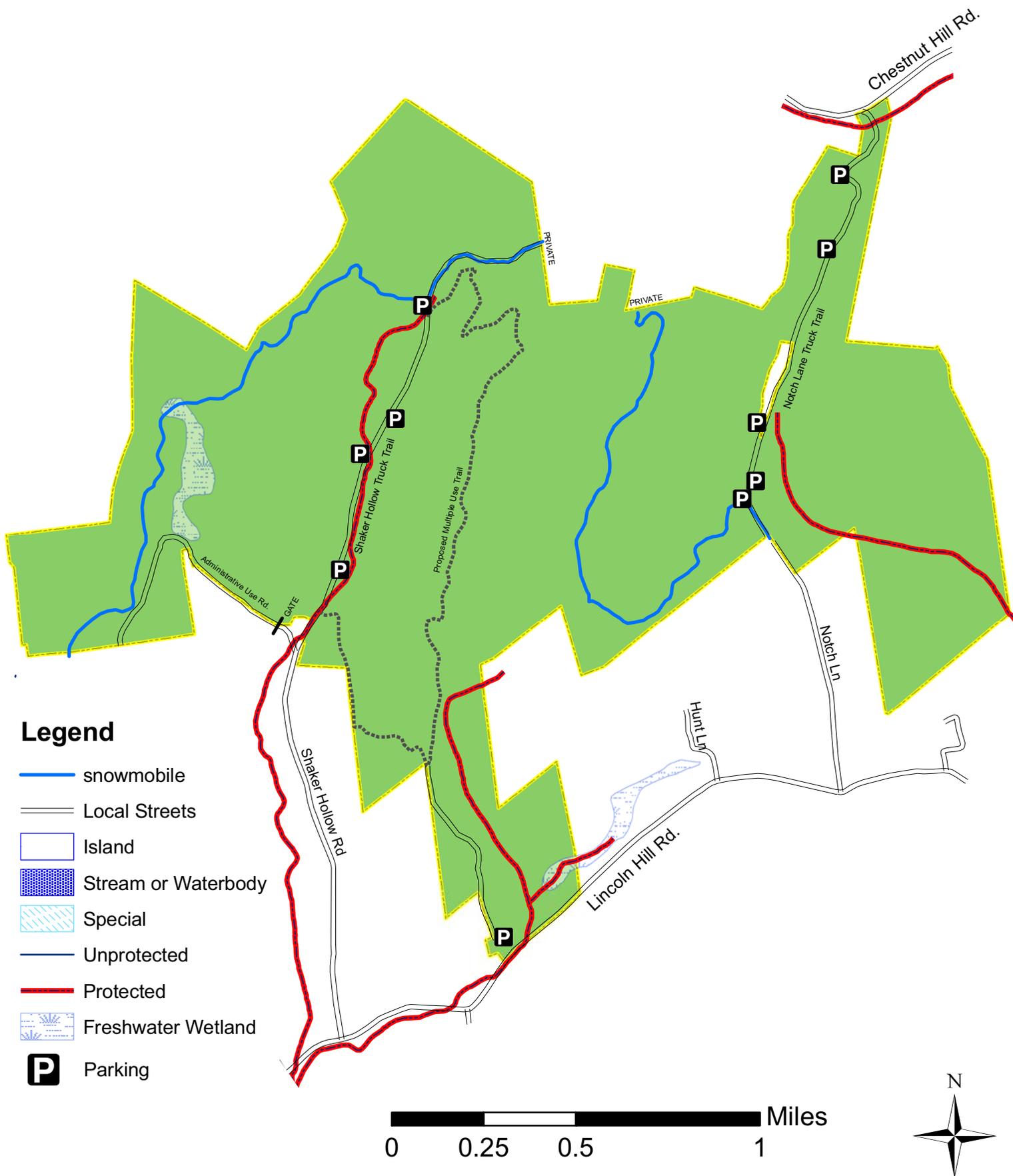
- Local Streets
- Island
- Stream or Waterbody
- Special
- Unprotected
- Protected
- Freshwater Wetland
- P** Parking
- P** Proposed Parking
- G** Gravel Pit

0 0.125 0.25 0.5 Miles



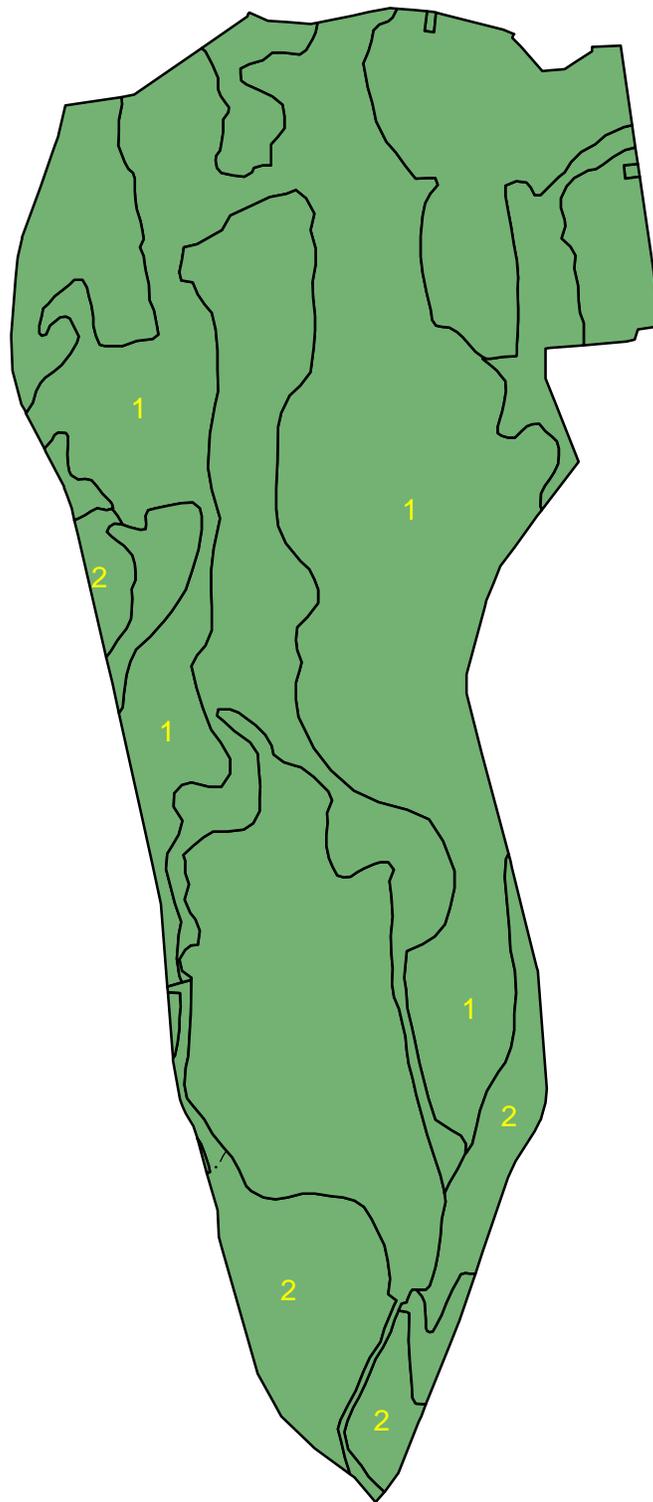
Mt. Tom State Forest

Wetlands, Hydrology and Infrastructure



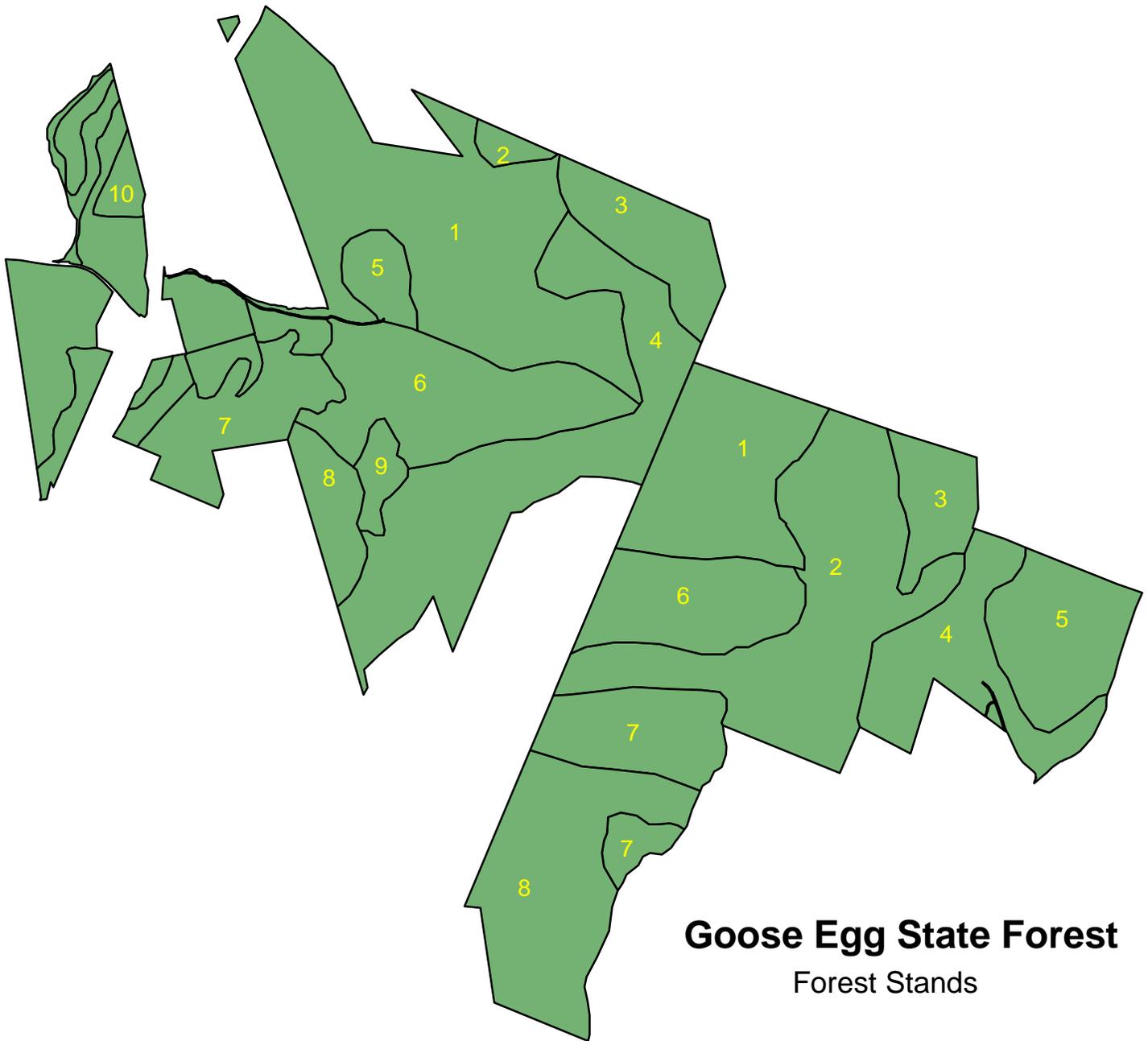
Carters Pond Wildlife Management Area

Forest Stands



Batten Kill State Forest

Forest Stands



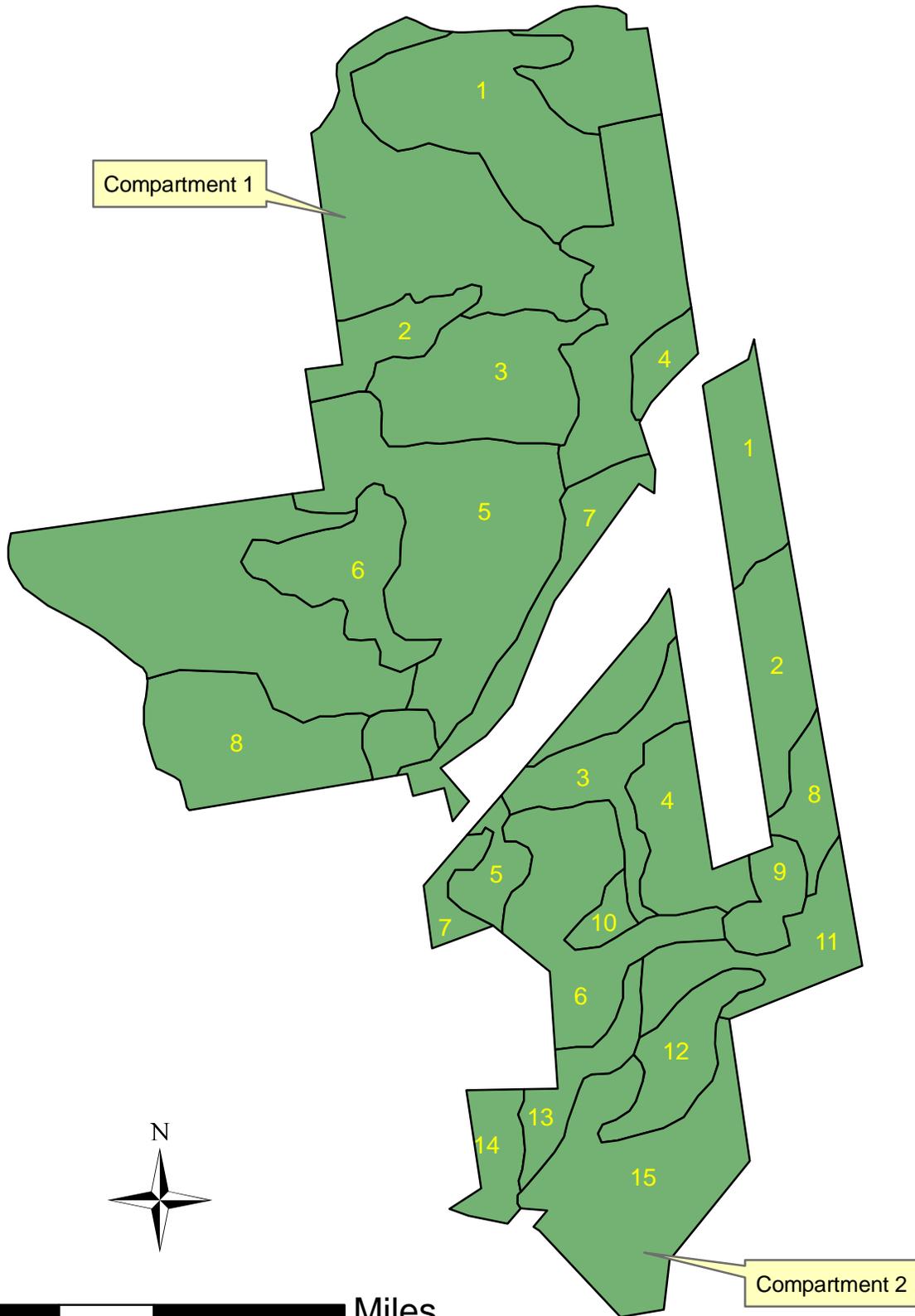
Goose Egg State Forest

Forest Stands



Eldridge Swamp State Forest

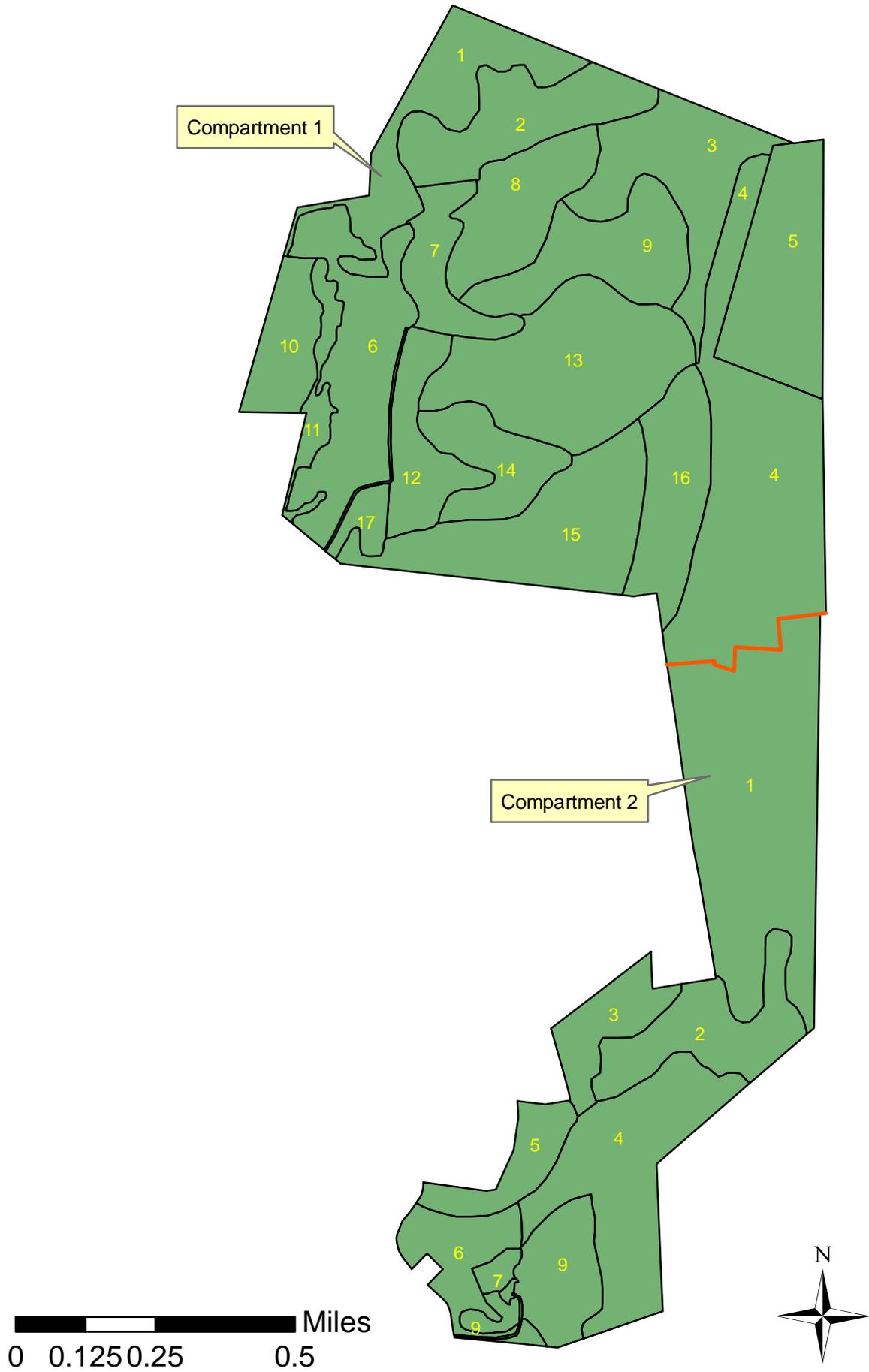
Forest Stands



0 0.125 0.25 0.5 Miles

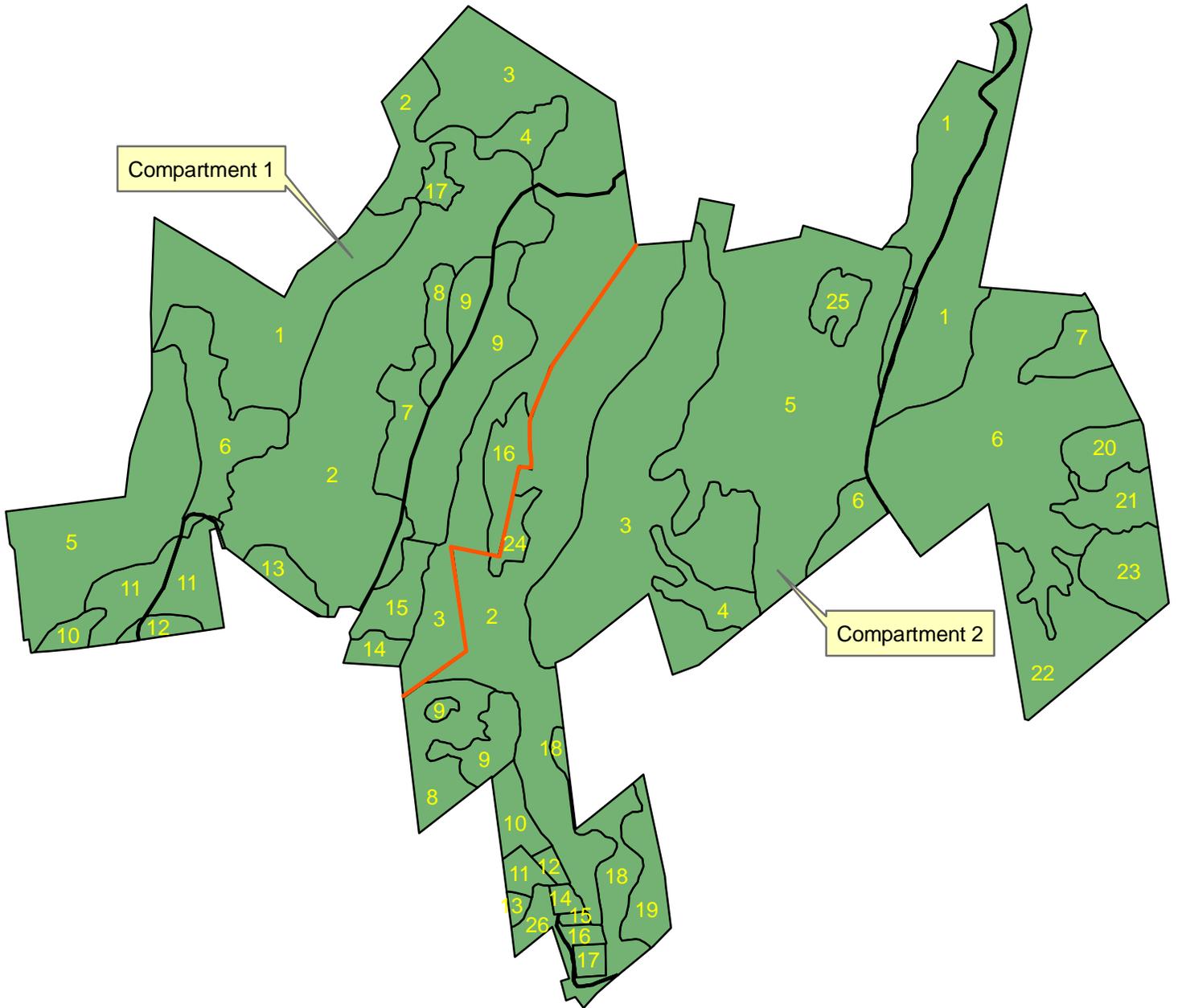
Chestnut Woods State Forest

Forest Stands

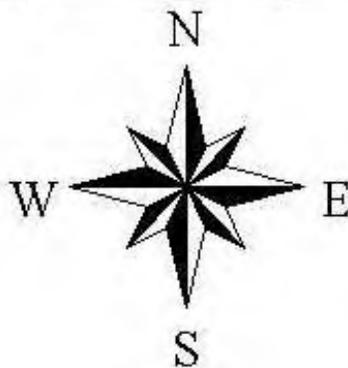
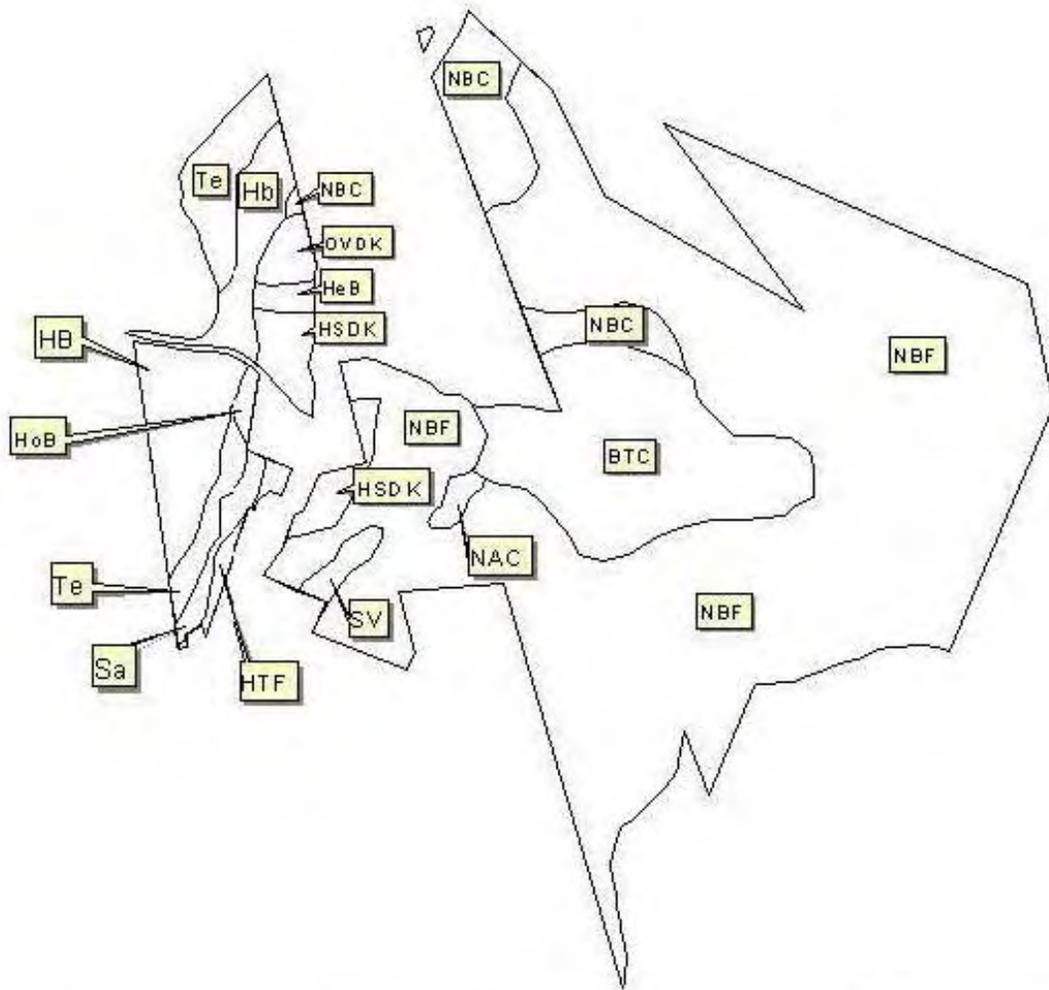


Mt. Tom State Forest

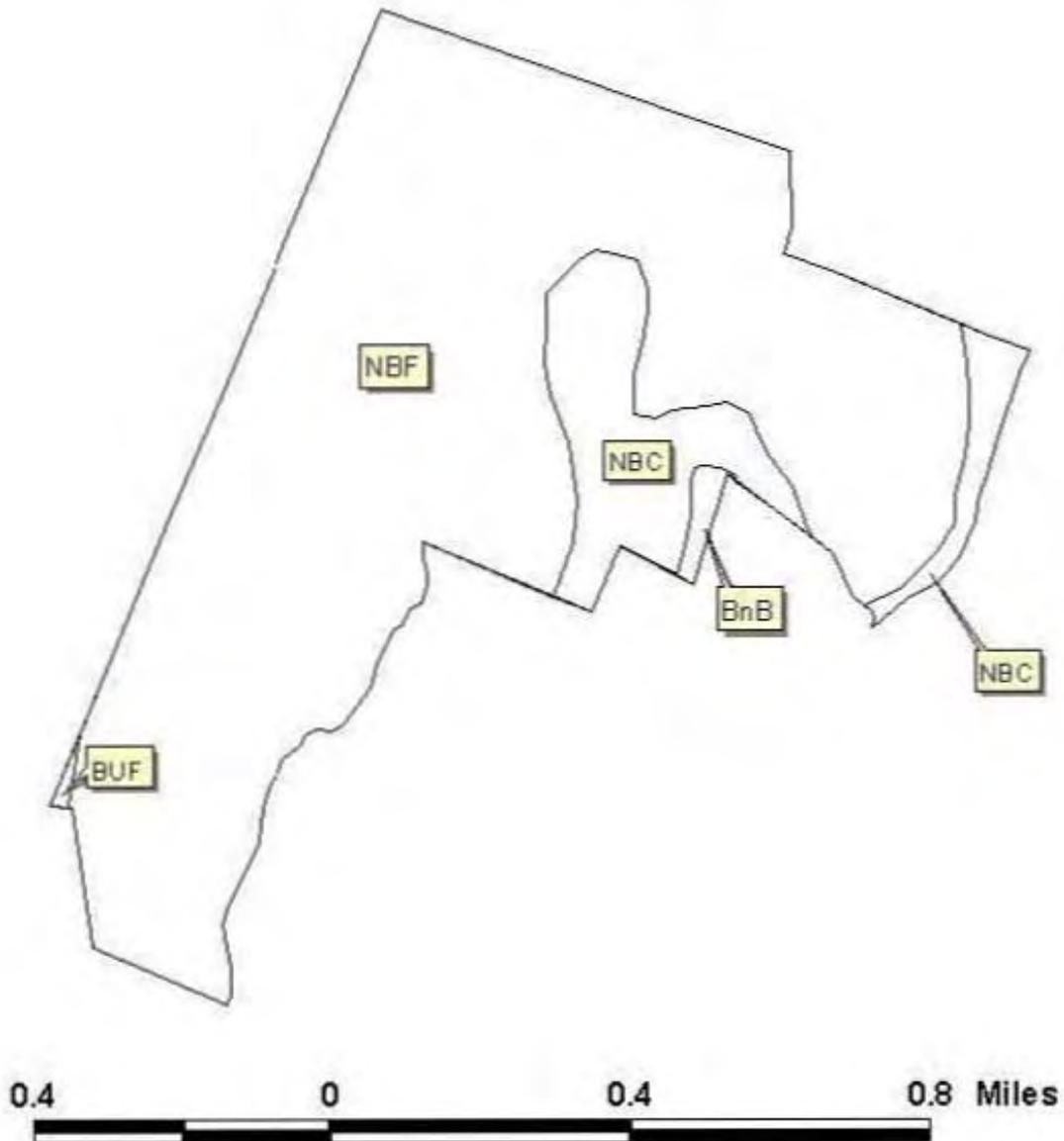
Forest Stands



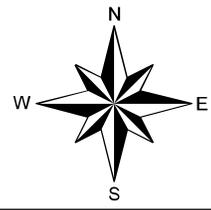
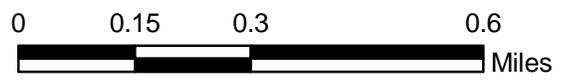
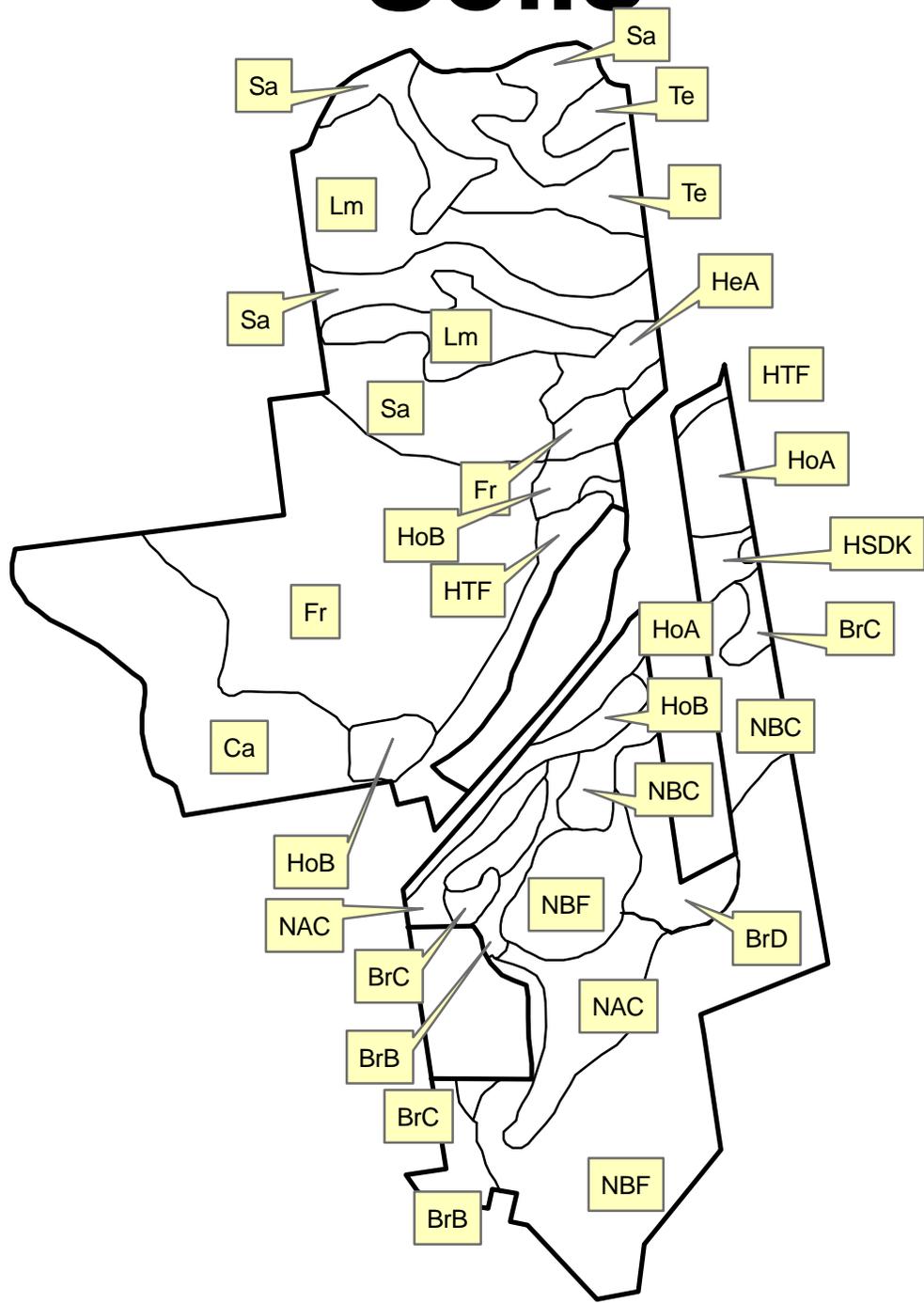
Batten Kill Soils



Goose Egg Soils

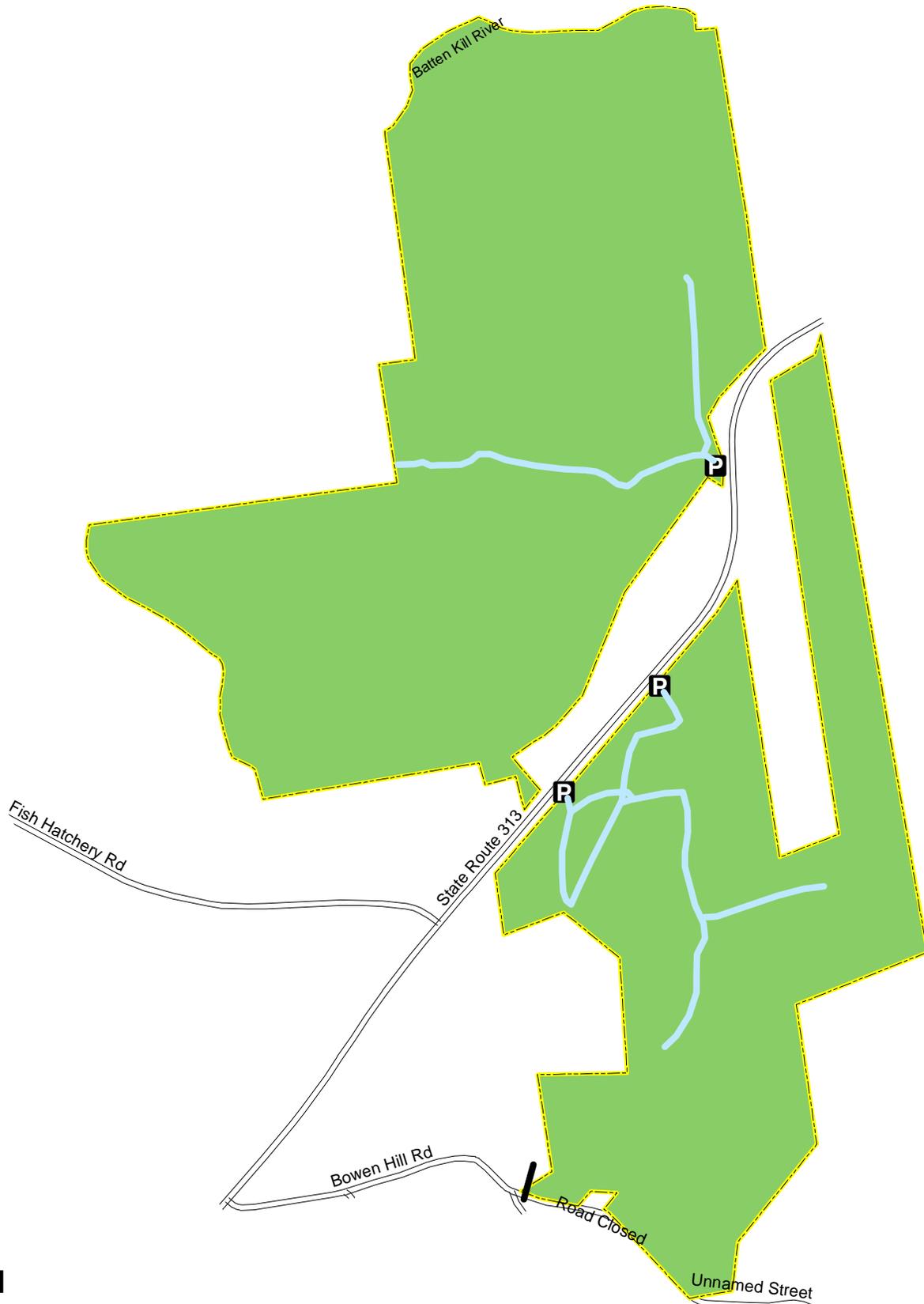


Eldridge Swamp Soils



Eldridge Swamp State Forest

MAPPWD motor vehicle access routes



Legend

Local Streets

P Parking

MAPPWD access route

0 0.125 0.25 0.5 Miles



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