NEW YORK STATE OF OPPORTUNITY. | Department of Environmental Conservation

BROOKFIELD

UNIT MANAGEMENT PLAN

FINAL

Towns of Bridgewater, Brookfield, Columbus, Sherburne, Hamilton

Counties of Chenango, Madison, Oneida

June 2017

DIVISION OF LANDS AND FORESTS
Bureau of State Land Management, Region 7

2715 State Highway 80
Sherburne, New York 13460
607-674-4036

OFFICE OF THE COMMISSIONER

New York State Department of Environmental Conservation
625 Broadway, 14th Floor, Albany, New York 12233-1010
P: (518) 402-8545 | F: (518) 402-8541
www.dec.ny.gov

JUN 17 2017

MEMORANDUM

TO: The Record

FROM: Basil Seggos, Commissioner

SUBJECT: Brookfield Unit Management Plan

The Unit Management Plan for Brookfield has been completed. The Plan is consistent with Department policy and procedure, involved public participation and is consistent with the Environmental Conservation Law, Rules and Regulations. The plan includes management objectives for a ten year period and is hereby approved and adopted.

NEW YORK STATE OF OPPORTUNITY. | Department of Environmental Conservation

BROOKFIELD
UNIT MANAGEMENT PLAN

FINAL

COVERING FIVE STATE FORESTS IN MADISON COUNTY, NY:

CHARLES E. BAKER-MADISON R.A. # 1 & 4
BROOKFIELD RAILROAD-MADISON # 6
BEAVER CREEK-MADISON # 11 & 12

June 2017

Prepared By:
Andrew Blum, Senior Forester, Co-author
Robert Off, Senior Forester, Team Leader
Jason Schoellig, Senior Forester
Christopher Sprague, Senior Forester

New York State Department of Environmental Conservation
Lands & Forests Office
2715 State Highway 80
Sherburne, New York 13460
607-674-4036

Contributing Staff:
Sheri Thrasher, Administration
Thomas Bell, Wildlife Biologist
Linda Collart, Mineral Resources
Richard Chapin, Operations Supervisor
Glenn Vanderneut, Operations Field Supervisor (retired)
James McPherson, Forest Ranger
David Lemon, Fisheries Biologist

DEC's Mission

"The quality of our environment is fundamental to our concern for the quality of life. 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." - Environmental Conservation Law 1-0101(1)

* Highlighted (**bold**) terms are defined in the Glossary.

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Preface

State Forest Overview

The public lands comprising this unit play a unique role in the landscape. Generally, the State Forests of the unit are described as follows:

- large, publicly owned land areas;
- managed by professional Department of Environmental Conservation (DEC) foresters;
- green certified jointly by the Forest Stewardship Council (FSC) & Sustainable Forestry Initiative (SFI);
- set aside for the sustainable use of natural resources, and;
- open to recreational use.

Management will ensure the sustainability, **biological diversity**, and protection of functional **ecosystems** and optimize the ecological benefits that these State lands provide, including the following:

- maintenance/increase of local and regional **biodiversity**
- response to shifting land use trends that affect habitat availability
- mitigation of impacts from invasive species
- response to climate change through carbon sequestration and habitat, soil and water protection

Legal Considerations

Article 9, Titles 5 and 7, of the Environmental Conservation Law (ECL) authorize DEC to manage lands acquired outside the Adirondack and Catskill Parks. This management includes **watershed** protection, production of timber and other forest products, recreation, and kindred purposes. For additional information on DEC's legal rights and responsibilities, please review the statewide Strategic Plan for State Forest Management (SPSFM) at http://www.dec.ny.gov/lands/64567.html. Refer specifically to pages 33 and 317.

Management Planning Overview

The Brookfield Unit Management Plan (UMP) is based on a long range vision for the management of the following State Forests: Charles E. Baker State Forest, Brookfield Rail Road State Forest and Beaver Creek State Forest, balancing long-term ecosystem health with current and future demands. This Plan addresses management activities on this unit for the next ten years, though some management recommendations will extend beyond the ten-year period. Factors such as

budget constraints, wood product markets, and forest health problems may necessitate deviations from the scheduled management activities.

Strategic Plan for State Forest Management

This unit management plan is designed to implement DEC's statewide Strategic Plan for State Forest Management (SPSFM). Management actions are designed to meet local needs while supporting statewide and eco-regional goals and objectives.
The SPSFM is the statewide master document and Generic Environmental Impact Statement (GEIS) that guides the careful management of natural and recreational resources on State Forests. The plan aligns future management with principles of landscape ecology, ecosystem management, **multiple use** management and the latest research and science available at this time. It provides a foundation for the development of Unit Management Plans. The SPSFM divides the State into 80 geographic "units," composed of DEC administered State Forests that are adjacent and similar to one another. For more information on management planning, see SPSFM page 21 at http://www.dec.ny.gov/lands/64567.html.

DEC's Management Approach and Goals

Forest 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 Bureaus 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 Departments ability to award a new agreement until early 2007.

Following the signed contract with NSF-International Strategic Registrations 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 Regions 3 through 9. This independent audit of State Forests was conducted by these auditing firms from May until July 2007 with dual certification awarded in January 2008.

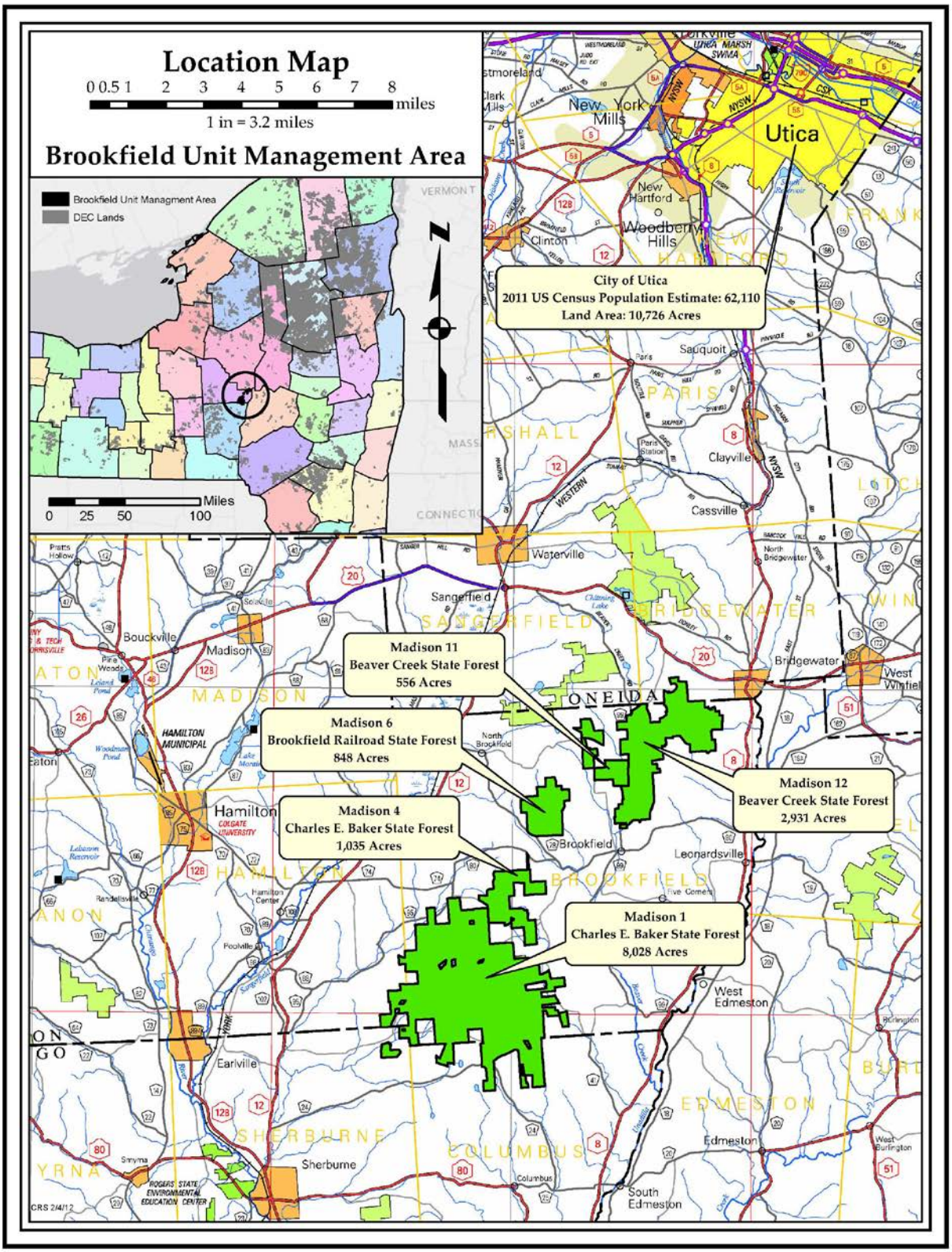
State Forests continue to maintain certification under the most current FSC and SFI standards. Forest products derived from wood harvested off State Forests from this point forward may now

be labeled as “certified” through chain-of-custody certificates. Forest certified labeling on wood products may assure consumers that the raw material was harvested from well-managed forests.

The Department is part of a growing number of public, industrial and private forest land owners throughout the United States and the world whose forests are certified as sustainably managed. The Department’s State Forests can also be counted as part a growing number of working forest land in New York that is *third-party certified* as well managed to protect habitat, cultural resources, water, recreation, and economic values now and for future generations.

The mark of responsible forestry

FSC® C002027


Location Map
0 0.5 1 2 3 4 5 6 7 8 miles
1 in = 3.2 miles
Brookfield Unit Management Area
Brookfield Unit Managment Area
DEC Lands
Miles
0 25 50 100
City of Utica
2011 US Census Population Estimate: 62,110
Land Area: 10,726 Acres
Madison 11
Beaver Creek State Forest
556 Acres
Madison 6
Brookfield Railroad State Forest
848 Acres
Madison 4
Charles E. Baker State Forest
1,035 Acres
Madison 12
Beaver Creek State Forest
2,931 Acres
Madison 1
Charles E. Baker State Forest
8,028 Acres
Utica
New York Mills
New Hartford
Clinton
Sauquoit
Clayville
Cassville
Waterville
Sangerfield
Bouckville
Madison
Hamilton
Brookfield
Leonardsville
West Edmeston
Earlville
Sherburne
Edmeston
South Edmeston
Bridgewater
ONEIDA
MADISON
CHENANGO
BROOKFIELD
EDMESTON
SHERBURNE
COLUMBUS

I. Historical Background Information

A. State Forest History

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 90% of the woodlands were cleared for cultivation and pasture.

Early farming efforts met with limited success. As the less fertile soils proved to be unproductive, farms were abandoned and settlement was attempted elsewhere. This set the stage for vegetative **succession** and new forests of young **sapling**s began to occupy the ground once cleared.

The State Reforestation Law of 1929 and the Hewitt Amendment (of the NYS Constitution) of 1931 set forth the legislation which authorized the Conservation Department to acquire land by gift or purchase for reforestation areas. This legislation was used to purchase the lands associated with seven of the **State Forests** addressed in this Unit Management Plan (UMP). These State Forests, consisting of not less than 500 acres of contiguous land are 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. Shortly after his inauguration in 1933, President Theodore Roosevelt signed legislation authorizing the Civilian Conservation Corps (CCC) program. Under the supervision of Army personnel, men between the ages of 18 and 26 were employed to plant trees, construct ponds, bridges and roads, as well as other forest improvement activities. Thousands of young men were assigned to plant millions of trees on the newly acquired State Forests. Most of the **plantations** of red pine and Norway spruce on the forests of this Unit were planted in the 1930s by the CCC.

During the war years of 1941-1945, very little was accomplished on the **reforestation** areas. Plans for further planting, 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, as well as the Environmental Quality Bond Acts of 1972 and 1986, contained provisions for the acquisition of additional State Forest lands, including in-holdings or parcels adjacent to existing State Forests. A total of 1,773.7 acres were purchased with these funds for acquisitions to the State Forests addressed in this UMP. All of

these lands were acquired for the conservation and development of natural resources, including the preservation of scenic areas, watershed protection, **forestry**, and recreation.

In 1970, the New York State Department of Environmental Conservation (DEC) was established. This new agency took over the mission of the old Conservation Department with the addition of various State environmental quality Divisions such as air and water. DEC's Division of Lands & Forests is now responsible for the management and stewardship of the State Forests.

New York State totals just over 30 million acres. The state-owned Forest Preserves in the Adirondack and Catskill Parks contain nearly 3 million acres, or very nearly 10 percent of the State's land area. These New York State Constitution, Article XI, Section mandates that Forest Preserve land be "forever kept as wild forest lands". No timber may be cut from the Forest Preserves. State Forests outside of the Adirondack and Catskill Preserves total over 780,000 acres. These lands are managed for a wide variety of purposes such as timber production, hiking, skiing, fishing, trapping and hunting. These State Forests are of great economic importance to the People of New York State. These forests also contribute greatly, in many additional ways, to the health and well-being of our communities.

B. Local History

Before the end of the Revolutionary War in 1783, the southeastern portion of present-day Madison County was held by the Oneida Nation of the Iroquois Confederacy. The eastern boundary of this territory was set by the treaty drawn up at Fort Stanwix (Rome) on November 5, 1768. The boundary followed the headwaters of the Unadilla River, thence south down the main river channel to the Susquehanna River and on to the Pennsylvania line. Another treaty drawn at Fort Stanwix on October 22, 1784, resulted in the Oneidas ceding to the Federal government much land west of the Unadilla River. Governor George Clinton subsequently acquired for the state all land owned by the participating Iroquois, with the exception of certain reservations.

The present Town of Brookfield was once included in the Chenango Twenty Towns. On March 21, 1806, Madison County was formed from Chenango County.

On July 4, 1791, Captain Daniel Brown and a few friends arrived from Connecticut and became the first settlers in the Town of Brookfield. Subsequent pioneers arrived from Connecticut and Rhode Island, setting about the monumental task of carving a niche from the vast wooded domain. They settled in rich river valleys and hills beyond, first in the eastern, then in the western reaches of the town.

All manner of agrarian, manufacturing, and service related occupations took root. These included sawmilling and logging, dairying, maple syrup production, brick manufacturing, cheese production, fur trading, grist milling, and cider pressing. Blacksmith shops, foundries, wagon, and agricultural

implement manufacturers and furniture factories were established. These are but a few of the many enterprises of the times. The wide variety of industry is perhaps the reason for the low fluctuation in population through the 1800's. The Town population in 1835 was 3959, which slowly declined to 3235 people in 1892. The 1990 census reports the population at 2225 people.

Evidence exists that many of the endeavors cited above took place on land that is State owned today. Land cleared by Simeon Brown, the son of Elder Simeon Brown, Jr., in 1791 on present-day Brown Road was farmed continuously for over 140 years. A small portion of this farm remains in private hands. A sawmill was located along Number Six Creek across from the Brown Road schoolhouse. It included a bunk house for mill workers as well as stables. A brick kiln was located along the eastern banks of Beaver Creek, near the site of the trail bridge crossing. A grist mill operated on Number Six Creek near Truck Trail #2 (TT). The Marsh Cheese Factory processed raw milk at a site near the junction of Truck Trail #1 and Brown Road. The one room schoolhouse that today is called the "Little Red Schoolhouse" still stands on Brown Road and recalls a time when summer sessions were the rule because of the difficulties presented by rigorous winter weather.

The village of Brookfield has seen several name changes. Initially it was called Bailey's Corners, after Eli S. Bailey, the first physician in the area. The first post office opened in 1820 with the name Beaver Creek. Joseph Clarke became the first postmaster. When the village became incorporated in April of 1834 it was renamed Clarkville (Clarksville) in his honor. Around 1860 the name was changed to Brookfield.

The names given to the Town roads in Brookfield are reminders of many of the early residents in the area. Road names, including Brown, Morrow, Collins, Pope Hill, Vidler, Doyle, Gorton Lake, Myers, Murphy, and Knight can be found as well as others. The names and home locations of many early settlers can be referenced in the 1875 Atlas of Madison County.

Originally the roads in the area were little more than dirt paths. Their maintenance often became the responsibility of the individual residents. Stoning and planking became common ways of dealing with the mud after winter breakup. Some roads serving important public needs were maintained by collecting tolls. The Skaneateles Turnpike which connected Richfield Springs with Skaneateles is one such road; it was originally an Indian trail. Another road of importance was the Brookfield Road, presently named Ouleout Road. It connected Brookfield with North Brookfield and had a twice daily stage which connected people and mail with the train depot. Funding for the maintenance of this road came through a poll tax, rather than through a general property tax levy.

In the early 1800's the West Brookfield area was settled by Quaker families. It was originally named Moscow and later DeLancy. The Quakers had a large and active membership (Society of Friends) which was affiliated with a Society in Madison. Their meeting house and cemetery stood at the top of Quaker Hill, next to the present entrance of Truck Trail #12.

The bed of an old railroad grade can be seen coursing through the area now called the Brookfield Railroad State Forest. At the time of its inception in 1886, the spur line was intended to connect Brookfield with the Delaware, Lackawanna, and Western Railroad at North Brookfield. A charter company was funded with $100,000 capital stock and work began. The grade was nearly completed, but the rails were never laid. The workers were not being paid and the venture was ended.

A fascinating chapter of local history is provided by the accounts of the Loomis family, who resided next to Nine Mile Swamp a few miles to the west of Brookfield. They were said to have made thievery and violence an institution. For nearly a century, beginning with the arrival of George Washington Loomis, Sr., and ending with the near hanging of Plumb, the Loomis Gang exerted a powerful influence from the Canadian border to Pennsylvania. They raided the hills and hamlets comprising Brookfield Township and hid their stolen booty and horses in secluded places. The rumor that the Loomis' may have used the so-called Bear Cave near the Lake Swamp (now called Lost Pond) as a depository for stolen goods is bolstered by the fact that the Loomis' did in fact make use of an underground stable for this purpose.

Much of the land that is now the Charles E. Baker State Forest was once owned by the Dix family (one member of whom was governor). They leased the land out to tenant farmers, but this became progressively less successful as the soils declined in fertility. Many of the Dix holdings were then sold to Frederick H. Cookingham and Morgan Garlock. These new owners promoted but did not succeed in the large scale raising of sheep. The growing of hops was also in decline; and farming as a profitable enterprise was not possible. Farm abandonment became commonplace in the early decades of this century.

Concern grew over the large amount of vacant land. A group of local men, including Sherrill Palmer, John Carlton, William Norman, and Charles Peckham formed the Brookfield Forest Products Co. in 1925. Their aim was to persuade then-Governor Franklin D. Roosevelt that the State should acquire and reforest these "idle" acres. They actively lobbied State officials; their voices joining others in this cause and helping to bring about an enlarged reforestation program in accordance with the provisions of the Hewitt Laws. In 1929, 1,297.40 acres came under purchase contract on Madison #1 to be the first State acquisitions within Madison County. The average price paid for these early purchases was $3.11 per acre. By 1930, 3,073.26 acres had been acquired and 2,106 acres reforested.

Tree planting up to that point had largely been done by hand. In 1930 a mechanical tree planter was developed by M.H.P. Walling of Cortland and manufactured by the Champion Sheet Metal Company, also in Cortland. Both the "Simplex," a one man horse machine and the "Duplex," a two man tractor drawn planter were available, the latter capable of planting 2,500 trees an hour. In 1930 these machines were field tested on Madison #1 and became the prototypes of modern planters.

Shortly after his inauguration in 1933, President Roosevelt signed legislation authorizing the Civilian Conservation Corps program. Charles E. Baker was the District Forester overseeing the massive land acquisition program and subsequent conservation programs of that day. A CCC camp S-91, company 279 was established along Ouleout Road. In June of 1935 another camp was built at Moscow Hill. Camp S-131 consisted of five enlisted barracks, one officer barrack, one forester barrack, a mess hall, a recreation hall, and a few other buildings. The camp had its own publication called the "Moscow Chief." The men were assigned to help build truck trails, dig water holes, plant trees, and thin hardwood stands. Their first project was the construction of Truck Trail #12 (T.T. #12). When World War II began, the Army abandoned the camp. Parts of the old foundations can still be seen in the Assembly and Camping Area along Moscow Road.

Forest fire detection has been an important facet of forest management over the years. The fire tower located at Chenango Lake was moved to the Charles E. Baker State Forest in 1948 to enable more thorough observation. The tower was not only valuable to the Ranger force but was a favorite place to gather for recreational purposes. The tower was sold and removed in the 1970's.

In 1967, the Empire State Horsemen's Association strongly backed the development of a horse trail system for pleasure riding. It required a joint effort by correction camp crews, operations personnel, rangers, and foresters to lay out and clear the trails. The system has grown to 130 miles traversing the five State forests. It is the scene of both the New York "100" and Fall Pleasure Rides. The Camping Area and Assembly Area on Moscow Road are facilities that support the trail system.

In June of 1992, a New York State historic sign commemorating the enduring works of CCC camp S-131, company 3202 was dedicated. The ceremony was shared with Mr. Warren G. Barden, one of the original campmen in his youth and a strong supporter of the sign's creation.

Recent history pertaining directly with the Unit

The following projects were listed in the first Brookfield Unit Management Plan approved by the Department in September of 1996. These various projects were undertaken between 1996 and 2012 as identified in the UMP and carried out between 1996 and 2012.

1. The following Public Use and Recreation objectives outlined in the first Brookfield Unit Management Plan have been accomplished:

- Upgraded 0.8 miles of Morrow road to class A truck trail standards.(Class A: Permanent all-weather unpaved access road with a minimum 20 ft. surface width)

- Constructed 0.4 miles of class A truck trail on Madison # 4 off Skaneateles Turnpike with turn around.

- Resurfaced 0.5 miles of Truck Trail on Madison # 11.

- Resurfaced 2.9 miles of T.T #4 on Madison #1.

- Installation of rock barriers and gate at each end of trail 29 on Madison #1 to prevent illegal vehicle access.

- Closing of T.T. #14 on Madison # 1 from fire tower site to T.T. #7 to public vehicle access, installation of gate and rock barriers included.

- Upgrade safety standards on T.T. #1 on Madison #1 by widening junction at T.T. #4 and replacing main culvert at Brown Road.

- Constructed three designated, signed parking areas on the Unit, two on Madison # 1 and one on Madison #12.

- Development of a new camping area for non-horse use on Madison #1 called Cherry Ridge Campground that includes nine sites, a drilled well for potable water, fire rings, picnic tables and two separate privy's for restroom facilities.

- Construction of a new Adirondack style lean-to near Woodland Pond on Madison # 1 off trail # 51.

- Development of a campsite on Madison # 12 off T.T. #1 with a shaled driveway and fire ring.

- Upgraded the Little Assembly Area on Madison #12 to accommodate one campsite and installed a fire ring for camping during the closed riding season.

- Permanently closed two trails and portions of four other trails with severe erosion issues and rerouted portions of five other trails with similar erosion problems.

- Developed an interpretive auto tour to highlight some of the uses and management objectives for these State Forests.

- Between 1995 and 2012, over 8,400 acres of the Unit have been treated with silvicultural stand treatments for the sustainable harvest of timber providing income to New York State, jobs and raw materials for the wood products industry.

2. Management Objectives not completed

The following projects were planned but not completed as outlined in the first approved UMP:

- Construction of a 50 'radius turn around on Meyers Road on Madison # 6.
  Reason: This work will be accomplished through a timber sale that has been delayed.

- Blocking off of Ledges Trail Road on Madison #1 to vehicle traffic by gate and rock barriers.
  Reason: This road has been kept open for administrative access and recreational use.

- Installation of new horse stalls at the old fire tower site (eight stalls) and Woodland Pond (four stalls) on Madison #1.
  Reason: The funding for this project was directed towards adding stalls and making improvements at the Moscow Hill Assembly Area.

- Annual employment of a seasonal staff person to help facilitate the recreational programs on the unit.
  Reason: This was only done for the 2001 and 2002 trail season. There has been inadequate funding to accomplish this.

- Purchase 200 acres of inholding properties under private ownership by fee simple title from willing sellers.
  Reason: Three parcels have been acquired totaling 59 acres. The Department continues to pursue desirable acquisitions where there is a willing seller and available funding.

- Acquire easements or purchase by fee simple title off-road trail corridors to join State Forests on the Unit.
  Reason: Funding and willing private land owners have not been available for this project.

3. 2014 Wind Storm

On July 3, 2014 an extreme wind storm struck the Unit resulting in over 300 acres of forest being damaged with blown over trees. The fallen trees blocked trails, roads and had major impacts to the Moscow Hill Camping and Assembly areas. Over half of the 59 miles of off-road trails on the Unit were blocked due to fallen trees. Soon after the storm, DEC Operations staff cleared the trails and recreational facilities of the fallen trees. Larger areas of damaged trees were sold to logging companies to salvage the timber value and clear the blocked roads and trails.

II. INFORMATION ON THE UNIT

A. Geographic, Demographic and Geologic Information on the Unit

1. Geography

The Brookfield Unit is located primarily within the Town of Brookfield in southeastern Madison County. Small portions of the Unit are also located in the adjacent Town of Hamilton in Madison County, the Town of Bridgewater in Oneida County, and the Towns of Columbus and Sherburne in Chenango County. The Unit consists of five State Forests that straddle the divide between the Chenango and Unadilla Watersheds near their northern extents. These five State Forests are further grouped into three named forests as shown in the table below:

Table 1. Forests on the Unit

State Forest Name	Reforestation Areas	Acres	Townships
Charles E. Baker State Forest	Madison 1 Madison 4	9,063	Brookfield, Hamilton, Columbus, and Sherburne
Brookfield Railroad State Forest	Madison 6	848	Brookfield
Beaver Creek State Forest	Madison 11 Madison 12	3,487	Brookfield and Bridgewater
		13,398	TOTAL

The Brookfield Unit lies at the northern edge of the Appalachian Highlands between the Chenango and Unadilla River Valleys. State Route 8 is situated to the east, Route 12 to the west, Route 20 to the north, and Route 80 to the south. The terrain is made up of gently rolling and somewhat flattened hills interspersed with small headwater streams and **wetland**s. Prominent hills found include Columbus Hill, Grassy Hill, Moscow Hill, and Quaker Hill on the Charles E. Baker State Forest, while Mount Hunger and Witter Hill are located on Beaver Creek State Forest. Elevations rise from a low of about 1,250 feet above sea level at the southwest corner of the Unit to highs of just over 1,900 feet in a few different locations. However, the majority of the Unit falls between about 1,400 to 1,800 feet. A network of town roads and State Forest **Public Forest Access Roads** provide good access points to all areas of the Unit.

Numerous springs and seeps form the beginnings of the many headwater streams. In general they vary from moderate to moderately steep and generally flow southwest to the Chenango River or southeast into the Unadilla River. The named streams on Charles E. Baker State Forest include Handsome Brook, Pleasant Brook, Shawler Brook, Number Six Brook, and Tallette Creek. The

Beaver Creek State Forest is named for its main waterway, while tributaries of West Creek flow from the Brookfield Railroad State Forest. All of the water systems on the Unit are part of the larger Chesapeake Bay Watershed.

Although the climate of Madison County was sometimes described as debilitating by the early settlers, over the course of time, it has proven to be somewhat favorable. Data collected by the National Climatic Data Center (NCDC) at the Morrisville Station, directly west and north of the Unit for a 48 year period from 1963 through 2011, shows an average annual precipitation of 43.5 inches which is somewhat evenly distributed throughout the year. The average annual snowfall for Madison County as recorded by the NOAA National Climatic Data Center for the period from 1981 through 2010 is 88.3 inches. Available sunshine for the area in and around the Unit averages about 49% in a given year. The prevailing winds are out of the west-southwest.

2. Demographics

In 1845 the US census data reported a town wide population of 3,959 people to be residing in Brookfield which is 35% greater than the 2010 US census population of 2,545 people. By the turn of the 20th century, agriculture and dairy farming had already peaked, and industrialization was beginning to take hold. Unproductive farms were soon abandoned as more fertile land became available on the western frontier and more prosperous jobs became available in towns and cities across the county and state.

The rate of land abandonment accelerated during the Great Depression when many farms went bankrupt. Farms on poorer quality soils with lower crop yields struggled to survive. It is no coincidence that the southeast corner of Madison County has such a large percentage of State lands now because of this dramatic land ownership change. At that time in history, numerous local and state agencies and town officials saw a need to address the issue of land abandonment and reforestation was determined to be the most appropriate solution.

The Town of Brookfield still remains very much in a rural character since its inception in 1791. The rural setting of the township along with its location a distance away from the larger metropolitan areas of Central NY has allowed Brookfield to remain a quiet and quant community. You can still find direct connections from the community to the surrounding rural landscape and public forest lands found within its borders. There are still strong ties to agriculture and forestry with 5.5% of the town's working population reported to be employed in some level of these occupations as indicated by the 2010 census. Also reported from this census is that 27% of the residential households within the town depend upon wood as their primary heating source. This is much higher than the county wide average of 7% or the State wide average of 2%. The mean annual income for Brookfield residents is reported below the average for Madison County as a whole. The current rate of households at or below the poverty level is reported at 20% for the town's population, double the average for Madison County.

There are signs that some of the rural character of the area is beginning to change. The desire to escape the hustle and bustle of urban life combined with the ever increasing cost of living downstate makes it is easy to understand why many would choose to move to more affordable communities upstate. As a result, land values have increased and subdivision of farms and woodlots for new homes, vacation homes, and hunting camps, has become worrisome to many local people. This type of new development is often seen near State forests and is many times advertised this way as a fringe benefit for those properties.

3. Geology

The Brookfield Unit is located at the northern edge of the Allegheny Plateau in Madison County. This large upland plateau is extant from central and western New York into the northern portions of Pennsylvania. Within the Unit this high plateau is characterized by nearly level hilltops, whose large rounded tops and ridges are comprised of glaciated bedrock that has been overlain by an uneven layer of glacial till. This glacial scouring of the valleys and slopes has produced a rugged and rolling appearance to the topography.

Geologically, the Unit is underlain by basement bedrock that includes Pre-Cambrian Era igneous and metamorphic rock types. These rocks are generally referred to as basement rocks and are found at depths greater than 5,000 feet. Overlying these layers of igneous and metamorphic rocks are sedimentary rocks deposited during the Cambrian Period over 500 million years ago and are comprised primarily of sandstones and shales.

In the following Ordovician Period, 435-500 million years ago, warm shallow marine seas occupied the region providing for the deposition of limestones, dolomites, and shales. Rock types formed during the Cambrian and Ordovician are located only in the subsurface of Madison County. However, to the north these rocks protrude at the surface due to the tilted inclination of the rock layers.

Overlying the Ordovician age sedimentary rocks are sedimentary rocks deposited during the Silurian Period. Silurian age rocks, deposited 400 to 435 million years ago, are comprised of primarily the evaporite gypsum, salt, and anhydrite rock types, shales, along with some dolomites and limestones. Their formation developed in more restrictive marine seas than the other underlying sedimentary layers.

There has been recent interest in the Ordovician limestones and dolomites, due to significant natural gas production from similar age rocks in various areas to the south and west of the unit. There is also interest in gas production from Ordovician and Silurian age rocks within Madison County, but this has been limited.

The Devonian Period, lasting from 345 to 435 million years ago, followed after the Silurian Period. It resulted in the deposition of sedimentary rocks comprised primarily by shales with some limestones and dolomites are also interbedded. These are the youngest layers of bedrock found in Madison County. Silurian and Devonian age rocks are the most recent and only bedrock layers that appear as surface outcrops or are exposed within Madison County.

The land forms visible today are largely a result of glaciation. During the 1.25 million years of the Pleistocene ice age there were series of glacial ice advance and retreat. As the glacial ice advanced it rose over hills and mountains and filled valley floors with vast sheets of ice. Embedded with rock and soil, these massive ice sheets scoured hilltops and gouged out valleys and lakes. Approximately 12,000 years ago the last receding Wisconsin glacier left a heterogeneous mixture of weathered rock and soil material known collectively as glacial till. Because of the diverse ways in which it was deposited and the different chemical composition of the parent material, glacial till and the soils that ultimately formed from them are exceedingly variable.

4. Soils

The predominant soil series found on the Brookfield Unit are Mardin and Lordstown. Bath and Volusia soils are also quite common. In northern part of the Unit soil types are more variable where in addition to the more regularly encountered soils; Aurora, Lima, Lansing, Honeoye, Stockbridge, and Wayland soil types are found.

The typical landscape for these soils consists of broad, rolling, or undulating uplands dissected by a few narrow valleys. A significant number of the soils on the Unit are typified by a fragipan layer or a seasonably high water table perched above the substratum. Soil slopes are commonly between 3 and 20 percent, but can range from 0 to 50 percent. Soils are generally deep to moderately deep with medium texture. Limitations of the soils are seasonally high water tables, low fertility, high acidity, and erosion on the steeper slopes. Plant rooting is frequently limited by a firm substratum or bedrock. These limitations impact the vegetative composition and growth, as well as management activities including the location and construction of forest roads, trails, and other facilities, and in particular the harvesting of forest products.

Although soil description provides information on subsurface characteristics, ground-level conditions reveal much about land use history and ecological complexity. The relatively smooth ground surface condition in most plantations is due in part to repeated plowing and cropping during the 19th and early 20th centuries. These soils typically have a well-defined plow layer and soil properties such as porosity and availability of nutrients have been altered from pre-settlement conditions. Stones and other impediments to plowing have been removed resulting in a relatively uniform soil texture. Unplowed soils in contrast, have an undulating surface condition with a well-developed hummock and hollow micro topography. Created when a tree becomes wind thrown, the hollows are the hole left from the upturned soil and tree root system, while the hummocks are the mounds formed of those same toppled remains.

More detailed information on the soils in this area can be obtained from the Soil Survey of Madison County, New York (USDA, 1985). A map displaying the location of soil types on the Unit is in **Appendix IX**, Soil Series and Drainage Classes map.

B. History of the Forest Cover

The forests of the Brookfield Unit today contain tree species of both native and non-native origin. The **native tree species** include black cherry, white ash, sugar maple, red maple, basswood, red oak, American beech, yellow birch, eastern hemlock eastern white pine, balsam fir, northern white cedar, aspen, and a few others. Most of the non-native species were introduced to the landscape in the 1930s, after New York State had purchased many of the undesirable farmlands and the Civilian Conservation Corps was directed to reforest these lands. Large plantations of red pine, Norway spruce, white spruce, Scotch pine, Japanese larch and European larch were established in the open fields of these newly created State Reforestation Areas. This blend of natural forest **cover types** and plantation forest cover types is one of the defining characteristics of the present-day Brookfield forests.

The term "forest cover type" refers to the type of tree or vegetation that dominates the site. However, many more species of plants and animals are found within the type. The interrelationship of these species is known as an **ecological community**.

Three of the most prevalent ecological communities found on the forests of the Brookfield Unit are Beech-Maple **Mesic** Forest, Hemlock-Northern Hardwood Forest and Northern White Cedar Swamp. The following descriptions (edited) of these communities were developed by the New York State Natural Heritage Program.

Beech-Maple Mesic Forest - A **hardwood** forest with sugar maple and beech co-dominant. These forests occur on moist, well-drained, usually acidic soils. The term "mesic" refers to the balanced moisture level of the **habitat**. The soils are not typically saturated or dry. Common associates are basswood, red maple, white ash, yellow birch, and Eastern hop hornbeam. There are relatively few shrubs and herbs. Characteristic small trees or tall shrubs are American hornbeam, striped maple, witch hazel, hobblebush and alternate-leaf dogwood. Characteristic ground layer species are blue cohosh, Christmas fern, jack-in-the-pulpit, white baneberry, wild leek, wild ginger, false Solomon's seal and bloodroot. There are many spring ephemerals which bloom before the canopy trees leaf out. Typically, there is also an abundance of tree seedlings, especially of sugar maple. Beech and sugar maple saplings are often the most abundant "shrubs" and small trees. Hemlock

may be present at a low density. Characteristic birds include the American redstart, red-eyed vireo, ovenbird, black-throated blue warbler, least flycatcher, Acadian flycatcher and red-bellied woodpecker.

Hemlock-Northern Hardwood Forest - A mixed forest that typically occurs on middle to lower slopes of ravines, on cool, mid-elevation slopes, and on moist, well-drained sites at the margins of swamps. In any one **stand**, hemlock is codominant with any one to three of the following: beech, sugar maple, red maple, black cherry, white pine, yellow birch, and basswood. The relative cover of hemlock is quite variable, ranging from nearly pure stands in some steep ravines to as little as 20% of the canopy cover. The shrub layer may be sparse. Characteristic shrubs are hobblebush, maple-leaf viburnum and raspberries. Canopy cover can be quite dense, resulting in low light intensities on the forest floor and hence a relatively sparse ground layer. Characteristic ground layer plants are Indian cucumber-root, Canada mayflower, shining clubmoss, evergreen wood fern, Christmas fern, Northern star flower. In forests that have beech as codominant, beech-drops is a common herb. Characteristic birds include wild turkey, pileated woodpecker, golden-crowned kinglet, black-throated green warbler and Acadian flycatcher.

Northern White Cedar Swamp - A rich conifer or mixed swamp that occurs on organic soils in cool, poorly drained depressions in central and northern New York and along lakes and streams in the northern half of the state. These swamps are often spring fed or enriched by seepage of cold, minerotrophic groundwater, resulting in a stable water table and continually saturated soils. The characteristic tree is northern white cedar (Thuja occidentalis), which makes up more than 30% of the canopy cover. Associated tree species include balsam fir, red maple, eastern hemlock white pine and yellow birch. Characteristic short shrubs include dwarf raspberry and red osier dogwood. Some of the characteristic herbs include wild sarsaparilla, marsh marigold, blue-bead lily, bunchberry, spotted jewelweed, sensitive fern, cinnamon fern and marsh fern. The surface of the peatland typically has small mounds and depressions called hummocks and hollows that are formed by decaying downed trees and tip-up mounds. Mosses and liverworts are diverse and abundant.

There are about 25 different tree species that are commonly found on the forests of the Brookfield Unit. Although additional species, such as Northern red oak, American elm and butternut may be found on the Unit, their occurrence is quite rare. The most common tree species that occur on the forests are listed below.

Native Hardwood Species
Black cherry
White ash
American beech
Basswood
Red maple

Sugar maple
Aspen (big tooth & quaking)
Yellow birch
Black locust
American hornbeam (blue beech)
Eastern hop hornbeam (ironwood)
Striped maple
Shadbush
Apple (various species)

Native Softwood Species
Balsam fir
Eastern white pine
Eastern hemlock
Northern white cedar

Plantation Softwood Species
Norway and white spruce
Japanese, European and Dunkeld larch
Scotch pine
Red pine
Eastern white pine

C. Major Land Classification Within The Unit

Table 2, following, identifies eight major categories of land found within the Brookfield Unit. Some of these categories are quite broad, but they are useful in developing forest management goals from a landscape perspective. Definitions for each category are listed below.

Table 2. Land Classifications on the Unit

Land Class	Acres	Acres	by DBH	Class	% of Total
		1" - 5"	6" - 11"	12" +	
Ponds	70				<1%
Old Fields	100				1%
Shrub land	168				1%
Wetland	695				5%
Mixed Hwd/Natural Conifer	2,598	8	952	1,637	19%
Natural Hardwood	3,788	300	800	2,682	28%
Conifer Plantation	4,518	11	668	3,842	34%

Mixed Hwd/Plantation Conifer	1,230	32	308	894	9%
Shale Pits	15				<1%
Roads	214				2%
Totals	**13,396***	**351**	**2,728**	**9,055**	
% of Total Forested Area		**3%**	**22%**	**75%**	**100%**

* Note: The total acres used for this plan is based upon Arc GIS calculations and is slightly different than the deeded acres listed in Table 1.

The Land Class categories listed in Table 2 are described below:

Ponds include both man-made and natural origin ponds on the Unit.

Old fields are essentially treeless and contain a mix of grasses and **forbes** growing on upland **sites** that are not wetlands. These are old agricultural fields, from 1 to 20 acres in size, which have not reforested.

Shrub lands are early successional communities that are not on wetland sites and are dominated by woody shrubs, apple and thorn apple trees along with scattered openings and larger trees.

Wetlands include open wet meadows and areas dominated by alders or other shrub species on wetland sites. Scattered trees may be mixed with the shrubs.

Mixed hardwood/natural conifer stands are comprised of at least 10% native conifers (eastern white pine, eastern hemlock, balsam fir, or cedar) in a mixture with hardwoods. This category also includes 211 acres of forested wetlands containing native conifers.

Natural hardwoods consist of areas where at least 90% of the forest cover within these stands consists of native hardwood species (white ash, red maple, sugar maple, beech, black cherry, aspen, etc.).

Conifer plantations contain planted trees of species such as red pine, Norway spruce, white spruce, Scotch pine, larch and white pine.

Mixed hardwood/plantation conifer includes those stands dominated by native hardwoods, where less than 50% of the trees are planted conifers.

Shale pits include the pits on the Unit used to maintain the road system.

Roads include the area occupied by forest access roads and town roads on the Unit. Full road **corridor width** is considered to be 50 feet in width and may contain trees, shrubs, or **grassland** habitat along its **edges**.

As the above table shows, the forests on the Unit are dominated by pole (6"-11") and saw timber (12"+) size trees which together comprise 97% of the Unit's forest cover. In comparison, only 351 acres (3%) of the forested area on the Unit are in seedling/sapling sized trees, 1"-5" in diameter. Early-successional habitat consisting of open or shrub lands combined with seedling or sapling size forested areas comprise 619 acres or 5% of the unit.

Detailed information about vegetative communities can be found in the Department of Environmental Conservation publication Ecological Communities of New York State: Second Edition, 2014 at http://www.dec.ny.gov/docs/wildlife_pdf/ecocomm2014.pdf.

D. Wetlands and Water Resources

1. Wetlands

Wetlands vary widely, across the landscape, because of differences in characteristics such as: hydrology (temporarily/seasonally flooded to permanently flooded), soils, topography, and vegetation (submergent aquatic plants to forested tree cover). Common freshwater wetlands include marshes, bogs, fens, swamps, vernal pools, **forested wetland**s, and spring seeps. Wetlands perform many functions that provide numerous benefits to people, fish, and wildlife. Wetlands provide flood protection and abatement; erosion control and containment of sedimentation; improved water quality; recharge of groundwater supplies; regulation of surface water flows; essential fish and wildlife habitat; production and recycling of nutrients; recreational opportunities; open space; and **biological diversity**.

Both the federal and State government regulate use of wetlands to protect the numerous functions and benefits of wetlands. Wetlands are protected pursuant section 404 of the Federal Clean Water Act. The Army Corps of Engineers regulates activities that may impact wetlands, such as placement of fill. Most designated wetlands have been classified by the U.S. Fish & Wildlife Service and are listed in the National Wetlands Inventory. In New York State, all freshwater wetlands are protected pursuant to the New York State Freshwater Wetlands Act, if they are at least 12.4 acres in size and meet criteria specified in section 24-0107 of the Act. Certain wetlands that are smaller than 12.4 acres may also be protected by the Act. DEC's regulations, 6 NYCRR Part 664 establishes a classification system of freshwater wetlands. This system creates four classifications for freshwater wetlands (class I, class II, class III, and class IV). The classification of a freshwater wetland, regulated under the New York State Freshwater Wetland Act, is based on the

ability of the wetland to perform functions and provide benefits. Class I wetlands perform the most functions, while Class IV wetlands perform the least amount of functions.

The Brookfield Management Unit contains about **723** acres of wetlands. The Unit includes all or portions of eight wetlands that are classified under the New York State Freshwater Wetlands Act. These classified wetlands comprise a total of **383** acres.

The wetlands regulated under the New York State Freshwater Wetland Act include 1 class I wetland comprising 262 acres and 7 class II wetlands comprising 114 acres. The class I wetland is the large wetland along Beaver Creek on Beaver Creek State Forest. See Appendix I for additional information about the wetlands regulated under the New York State Freshwater Wetland Act. There are other wetlands on the Brookfield Unit that are not classified under Federal or State Laws. These non-classified wetlands include spring seeps, riparian areas, and other types of wetlands. All of these wetlands will be protected from activities such as timber harvesting and mineral or gas exploration through the implementation of Special Management Zone rules developed by the Division of Lands and Forests, and the use of **best management practices**. However, gaining access to other managed sections of the forests may require crossing some of these wetlands. If a crossing is necessary, measures such as temporary bridges, seasonal restrictions, or surface mats will be utilized to limit the impact to the wetland.

2. Ponds

There are four man made ponds on the Unit comprising 47 acres of open water. The largest is Woodland Pond, consisting of 39 acres located in the center of Charles E. Baker State Forest. This pond was built in the 1950's with Federal Pittman-Robertson funding. Lost Pond, which also has a man-made dike is a complex aquatic system containing a small amount of open water, a bog, and a wide variety of plant species. In addition to the man-made ponds, 6 beaver or otherwise naturally formed ponds exist on the unit comprising 39 acres. For the location of the ponds, see the Water Resources and Special Management Zones map in **Appendix IX**.

3. Streams

All perennial streams within the Brookfield Management Unit have one or more of the following water quality classifications: AA, A(t), A, C(t), or C. Class C and class C(t) streams are capable of supporting fisheries, more specifically, class C(t) streams are capable of supporting a trout population. Class AA, A(t), and A streams are used as a drinking source. Intermittent streams on the Unit are not classified. There are 24 miles of class C(t) streams on the unit and approximately 34 miles of class C streams. The main streams on the unit include that are named include Beaver Creek, Handsome Brook, Shawler Brook, Tallette Creek, and Pleasant Brook. See Water Resources and Special Management Zones map in **Appendix IX** for their locations.

E. Mineral Resources

1. Oil, Gas and Solution Exploration and Development

Oil and natural gas are valuable resources which may be located under State Forests. The extraction of these resources generates revenue and provides raw material for energy products. Due to the infrastructure necessary to extract oil and natural gas resources, as with any other human activity on State lands, oil and natural gas exploration and its development can have negative impacts on the environment. Some of the impacts are short term such as those occurring during the siting and drilling phases of a well. Other impacts, such as forest **fragmentation,** have a more persistent effect.

Oil and gas production from State Forest lands, where the mineral rights are owned by the state, are only undertaken under the terms and conditions of an oil and gas lease. In all areas covered by this Unit Management Plan, New York State manages the surface estate through the NYSDEC Division of Lands and Forests, and the mineral estate is managed through the NYSDEC Division of Mineral Resources. At this time, there are no leases for oil or gas exploration or development on the Unit.

As surface managers, the Division of Lands and Forests will evaluate any concerns as they pertain to new natural gas leases on State Forest lands. Consistent with past practice, prior to any new leases, DEC will hold public meetings to discuss all possible leasing options and environmental impacts. A comprehensive tract assessment will be completed as part of this process. For more information on natural gas and other mineral resource policies, please see SPSFM Chapter 5, page 225 at http://www.dec.ny.gov/lands/64567.html.

2. Shale Pits

There are a number of shale pits on the Brookfield Unit. Most of these pits were created when the Public Forest Access Roads were being constructed. Today, shale is occasionally removed from these pits primarily for landing resurfacing the Public Forest Access Roads. The Brookfield Unit contains six shale pits located on Madison RA #s 1, 4, 11 and 12. These pits are also often used for target shooting.

F. Wildlife Resources

The Brookfield Unit and the landscape surrounding the Unit contain a variety of wildlife including many species of mammals, birds, amphibians, reptiles, fish, and invertebrates such as snails,

mussels, insects, spiders and worms. Many resources were consulted to assess the variety of wildlife and wildlife habitat in and around the Unit.

1. Wildlife on the Unit

Species of Greatest Conservation Need

In 2005, the Department released New York State's Comprehensive Wildlife Conservation Strategy. It can be found at: http://www.dec.ny.gov/animals/30483.html
This plan addresses the conservation of those "species of greatest conservation need" (SGCN). This list of species was developed by DEC staff in consultation with experts and scientists from across the State. The list of species was updated in 2015. In the plan, the State is examined by major watersheds to determine those species in greatest need of conservation. The Brookfield Unit is in the Susquehanna Basin portion of the plan.

Species classified as High Priority SGCN are known to be declining and conservation action is urgent before they reach critical population levels in New York State. SGCN species are those expected to experience significant declines in their population and management intervention is needed to secure their populations. Table 3 lists those SGCN species known to be on or in the vicinity of the Unit and their status (New York Species of Greatest Conservation Need, NYS DEC, 2015).

Table 3. SGCN Species by Species Group Found On or In the Vicinity of the Unit

SGCN Birds: Species Surveyed on or in the Vicinity of the Unit, NYS Breeding Bird Atlas 2000 – 2005 data.

Species Group	Status
Early successional forest/shrubland birds	
American woodcock	SGCN
Black-billed cuckoo	SGCN
Blue-winged warbler	SGCN
Brown thrasher	High Priority SGCN
Canada warbler	High Priority SGCN
Ruffed grouse	SGCN
Deciduous/mixed forest breeding birds	
Black-billed Cuckoo	SGCN
Black-throated blue warbler	SGCN
Louisiana waterthrush	SGCN
Scarlet tanager	SGCN
Wood thrush	SGCN

Forest breeding raptors	
Northern goshawk	SGCN
Red-shouldered hawk	SGCN
Golden eagle	SGCN
Grassland birds	
American Kestrel*	SGCN
Bobolink*	High Priority SGCN
Eastern meadowlark*	High Priority SGCN
Northern harrier	SGCN
Vesper sparrow*	High Priority SGCN
Waterfowl	
American black duck	High Priority SGCN

* These are upland grass dependent species that likely use large fields found outside the Unit. However, they may use grasslands on the Unit where those areas a located adjacent to larger fields on private lands.

SGCN Reptiles & Amphibians: Species Surveyed on or in the Vicinity of the Unit, NYS Amphibian and Reptile Atlas Project, 1990 – 1999 data.

Species Group	**Status**
Turtles	
Snapping turtle	SGCN
Wood Turtle	High Priority SGCN

SGCN Mammals: Species Likely to be on or in the Vicinity of the Unit, The New York Gap Program, U.S. EPA EMAP Hexagons 348, 377 and 381 data.

Species Group	**Status**
Tree Bats	
Eastern red bat	SGCN
Hoary bat	SGCN
Silver-haired bat	SGCN
Indiana bat	High Priority SGCN
Little Brown bat	High Priority SGCN
Northern long-eared bat	High Priority SGCN

As shown in the table above, the many species with decreasing population trends are those bird species that require early successional forest/shrublands or **grasslands** for habitat. These types of habitats are declining throughout the northeast as abandoned agricultural lands revert back to forest cover. Historically, these habitats were created by periodic disturbances such as fire, beaver flooding, river flooding, Native American burning activities, and wind storms. Elsewhere, native grasslands have been used for agriculture. Today, most of the disturbance factors are minimized or eliminated to accommodate the needs of society. Provision of these habitats for species dependent upon them will largely depend upon active management in the future.

Birds

The New York State Breeding Bird Atlas is a comprehensive, statewide survey that reveals the distribution and protective status of breeding birds in New York State. The most recent data, for the Breeding Bird Atlas, was collected from 2000 to 2005. Eighteen Breeding Bird Atlas blocks (4468A,4469D, 4568B,4569A, 4569C, 4569D, 4570B,4570C, 4571A, 4571B, 4571D, 4572B, 4572D, 4670A, 4671A, 4671C, 4671D, & 4672C) were assessed to determine the possible, probable, and confirmed breeding bird species found on the Unit and surrounding vicinity. The Breeding Bird Atlas confirmed or predicted that there are 127 bird species breeding on the Unit or the surrounding vicinity. **Appendix V** shows these species by common name, scientific name, breeding status, and protective status. For information about rare bird species, see section G. 3. Significant Animals portion of this plan.

Amphibians and Reptiles

The Amphibian and Reptile Atlas Project was a ten-year survey, conducted by the DEC that was designed to document the geographic distribution of New York's amphibians and reptiles. The survey was conducted from 1990 to 1998. The project predicts 25 species of amphibians and reptiles on or in the vicinity of the Brookfield Management Unit. A complete list of the 25 species, by common name, scientific name, and protective status is found in **Appendix IV**.

Mammals

The New York GAP Mammal Hexagon Database was used to determine the distribution of mammals on or in the vicinity of the Unit. Other sources were used to determine the protective status of these species. The sources include: the NYS DEC public website, the U.S. Fish and Wildlife Service website, and the New York Natural Heritage Program (NYNHP) database.

The New York State GAP confirmed or predicted 51 mammalian species on or in the vicinity of the Unit. A complete list of mammals that were confirmed or predicted, on the Unit or surrounding area, can be found in **Appendix V**. For information about rare mammal species, see section G. 3. Significant Animals portion of this plan.

Fish

Ponds: Woodland Pond is the largest on the Unit. No formal Fisheries surveys have been done on this pond but it has been known to support bullheads in the past. From shoreline observations this

pond appears to be very shallow. Anoxic conditions generally occur in shallow ponds with an abundance of organic material, which describes Woodland Pond. Once permanent ice cover forms, pond water can no longer be re-oxygenated at the surface. Through the winter, aerobic decay of organic matter, along with respiration of plants and animals, depletes the limited oxygen supply under the ice. Depending on the amount of organic matter, duration of ice cover, and the depth of snow, complete exhaustion of oxygen can occur. A heavy snow cover will exacerbate the situation by blocking light penetration and shutting down any photosynthesis which would otherwise add oxygen to the water. This condition can render a pond incapable of supporting any fish through the winter in some years. Some fish, like bullheads, are more tolerant of low oxygen levels than other fish and larger fish will usually succumb before smaller ones.

Streams: All of the streams on the unit are small headwater streams which likely support a minimal level of sport fishing. Although few formal fisheries assessments have been conducted since the 1960s on some of the streams, it is likely that the fish communities are composed of the typical species associated with headwater streams in the Susquehanna River drainage. Species typically found in these waters during surveys in the 1960s and two in the 1990s include mottled sculpin, longnose dace, blacknose dace, Johny darter, and creek chub.

The primary management objective for all of the streams on the unit is to maintain good water quality by maintaining streambank stability. Good water quality in these streams will help to ensure good water quality in their receiving waters. The maintenance and improvement of water quality in waterways throughout the Susquehanna drainage is taking on an ever increasing importance.

Many of the streams on the unit; Beaver Creek, Handsome Brook, Shawler Brook, Tallette Creek, Pleasant Brook and numerous unnamed streams are designated trout streams which support native brook trout. Based on their size, several other streams on the unit may also be capable of supporting trout and Bureau of Fisheries (BOF) staff will attempt to sample these waters in the coming years to determine if wild trout now inhabit them. If any streams do support trout, BOF staff will petition the Division of Water to have the water quality classification upgraded. Although none of these streams likely support many large fish, it's probable that they are important spawning and nursery areas for trout.

Game Species

There are many game species located on or in the vicinity of the Brookfield Management Unit. Game species are protected by regulated hunting/trapping seasons. Game species, on or in the vicinity of the Unit include a variety of birds and mammals. Game species contribute to the local economy and provide outdoor recreation. More details of some of the major game species can be found below.

White-tailed Deer - The Department manages deer populations in Wildlife Management Units (WMUs). The Brookfield Management Unit falls within WMU number 7M. A Citizen Task Force (CTF), made-up of local interest groups such as farmers, foresters, hunters, motorists, and the tourism industry, recommends a desirable deer population to the Department. Deer populations are controlled with regulated hunting through the use of Deer Management Permits (DMP). DMPs are permits to harvest antlerless deer. Using the recommendations, of the CTF, Department biologists determine the number of DMPs to issue within each WMU.

Excessive deer populations can be detrimental to forested **ecosystems**. Deer can alter the forest **understory** by over-browsing. Over-browsing can completely eliminate certain tree, shrub, and herbaceous species. Over-browsing may eliminate the forest understory layer, which can cause increased nest predation to ground-nesting and shrub-nesting birds, alters food sources for a variety of wildlife, can impact the future forest composition and structure. More information on the relationship between deer populations and the vegetation composition of the forest can be found in this plan under Section L, Forest Health.

Turkey - Once extirpated from New York State as a result of over-hunting and habitat loss, the wild turkey currently has a secure population throughout the State. Wild turkeys are protected as a game species and can be hunted during two seasons (Spring and Fall).

Grouse & woodcock – These are upland game birds that are also SGCN species. Both species are dependent upon early successional habitat for portions of their life cycles. Aspen is an important source of food and cover for these species. Past management on the Unit has focused on maintaining aspen where it occurs.

Furbearers - There are many species, on or in the vicinity of the Brookfield Management Unit, that are considered furbearers. Within the Unit, some of the furbearers that can be hunted and/or trapped include the American beaver, mink, common muskrat, short-tailed weasel, long-tailed weasel, red fox, gray fox, common raccoon, coyote, fisher, gray and red squirrel, Virginia opossum, and the striped skunk. Otter and bobcat, although present in the Unit are not open for trapping at this time.

2. Important Habitat Features

The Brookfield Management Unit and the surrounding landscape provide diverse habitats for a variety of wildlife species. The assessments conducted above, along with forest inventories, have revealed important habitat features within the Unit. The following habitat features must be considered to ensure a healthy diverse wildlife population:

<u>Coniferous Forest Cover Type</u>

Coniferous (evergreen) or mixed conifer-hardwood conditions comprise 62% of the Unit compared to just 17% of the surrounding landscape. Some birds require a conifer component as part of their habitat. Some of the conifer dependent birds, which are confirmed or predicted to be on or near the Unit, include pine siskin, purple finch, hermit thrush, yellow-rumped warbler, blackburnian warbler, magnolia warbler, pine warbler, black-throated green warbler, dark-eyed junco, red crossbill, golden-crowned kinglet, red breasted nuthatch, winter wren, and the blue-headed vireo.

There are also mammals that require and/or benefit from conifer or mixed conifer-hardwood conditions. Mammals that require and/or benefit from the coniferous forests on the Unit include the red squirrel, snowshoe hare, deer mouse, Southern red-backed vole, white-tailed deer, and Hoary bat.

Continuous Forest Cover

State forests provide large blocks of continuous forest cover in a landscape that is often dominated by relatively fragmented forest areas. Some species prefer large forested areas for their habitat. These areas may contain a variety of forest canopy conditions ranging from young forest to **late successional** habitat, but they provide remote, forest habitat with a minimal amount of non-forest cover. The bald eagle prefers relatively undisturbed, forested areas near wetlands or large water bodies where they prey on fish. The bald eagle population in New York State has been increasing since the 1970s. Bald eagles are still threatened by habitat loss and development pressures. The Cooper's hawk, Northern goshawk, red-shouldered hawk, and sharp-shinned hawk have some variations in their habitat requirements, but they all prefer a continuous forest cover. Other bird species, found on or near the Unit, that prefer a continuous forest cover are the pileated woodpecker, common raven, and broad-winged hawk. Mammals that prefer a continuous forest cover include: black bear, bobcat, fisher, and Northern flying squirrel.

Multi-Layered Forest Canopy Structure

There are many bird species, on or near the Unit, that require a multi-layered forest canopy structure as a habitat requirement. Some of the birds that require a multi-layered forest canopy structure are the golden-crowned kinglet, hermit thrush, black-throated green warbler, yellow-rumped warbler, ovenbird, red-eyed vireo, warbling vireo, black-and-white warbler, least flycatcher, scarlet tanager, yellow-throated vireo, black-throated blue warbler, Canada warbler, American redstart and veery.

Cavity Trees/Snags/Course Woody Material

Many wildlife species use **cavity trees**, **snags,** or **Coarse Woody Material (CWM)** for perching, feeding, nesting, and/or roosting. Some wildlife use live cavity trees while others use dead cavity trees.

Some of the bird species, on or near the Unit, that use cavity trees include: red-breasted nuthatch, brown creeper, Eastern bluebird, house wren, Northern mockingbird, tree swallow, American kestrel, Eastern screech owl, barred owl, black-capped chickadee, pileated woodpecker, tufted titmouse, downy woodpecker, great-crested flycatcher, Northern flicker, white-breasted nuthatch, hairy woodpecker, Carolina wren, winter wren, common merganser, hooded merganser, and wood duck.

Mammals, in or around the Unit, that use cavity trees include: Indiana bat, little brown bat, silver-haired bat, big brown bat, Virginia opossum, gray squirrel, Northern flying squirrel, porcupine, gray fox, raccoon, fisher, short-tailed weasel, and long-tailed weasel.

Snags may have cavities or they may not. Snags without cavities are used mostly as perches or foraging sites. Birds, on or near the Unit, that utilize snags include: sharp-shinned hawk, Cooper's hawk, broad-winged hawk, red-tailed hawk, turkey vulture, American kestrel, bald eagle, brown creeper, great blue heron, green heron, great-horned owl, pileated woodpecker, and barred owl.

Mammalian species that may den in CWM include the Virginia opossum, Eastern chipmunk, Southern red-backed vole, gray fox, black bear, fisher, short-tailed weasel, and long-tailed weasel, mink, striped skunk, and bobcat. CWM is home to many wood-decaying insects that are used as a food source for many birds, mammals, amphibians, and reptiles. Many species of amphibians and reptiles live in or under the moist, soft, decaying wood of CWM.

Wetlands/Riparian Areas

A large wetland complex known as Beaver Creek Swamp can be found on the east side of Madison # 12 primarily between Fairgrounds and Beaver Creek Roads. This large wetland complex is approximately 262 acres.

Although all wildlife needs water to survive, there are many wildlife species that use water as their primary habitat. Many wildlife species depend upon the presence of wetlands or riparian areas including spring seeps, vernal pools, swamps, bogs, ponds, and streams. The birds, on or near the Unit, that utilize water as their primary habitat include the Canada goose, common merganser, hooded merganser, great blue heron, green heron, mallard, wood duck, belted kingfisher, spotted sandpiper, swamp sparrow, alder flycatcher, willow flycatcher, American black duck, bald eagle, marsh wren, Northern waterthrush, bank swallow, common yellowthroat, and Wilson's snipe.

Mammals, on or in the vicinity of the Unit, that use water as part of their primary habitat include the American beaver, common muskrat, Southern bog lemming, big brown bat, little brown bat, Northern bat, Indiana bat, silver-haired bat, star-nosed mole, raccoon, mink, long-tailed weasel, and river otter.

Nearly all the amphibians and reptiles, on or near the Unit, require water for at least part of their life cycles.

Early Successional Habitat

The unit does not contain sufficient habitat for grassland associated species. The Unit does have both upland shrub and wetland early successional habitat. The most significant early successional habitat on the Unit is the over 260 acres of open and shrub wetland along Beaver Creek on Beaver Creek State Forest. This area is 3 miles long by 500 to over 1,000 feet wide. This area consists of a mix of rushes and sedges mixed with alder and other wetland shrubs with Beaver Creek flowing south, through the center of it.

As shown in **Table 2**, 351 acres (3%) of the forested area on the Unit is in seedling/sapling sized trees, 1"-5" in diameter. Upland open and shrub lands combined with seedling or sapling size forested areas comprise 619 acres or 5% of the unit.

Some of the species on or in the vicinity of the Unit that may use open wetland early successional habitat include northern harrier, rough-winged swallow, spotted sandpiper and killdeer. According to the New York Natural Heritage Program, there are two main reasons why the northern harrier is threatened: loss of large areas of grassland habitat and loss of wetland habitat.

Shrubs and **pioneer** tree species become established on open lands. Shrubs and seedling/sapling sized trees provide habitat to a variety of wildlife species. This early successional habitat is used by a number of bird species found in and around the Unit. The bird species include the ruffed grouse, Canada warbler, yellow-rumped warbler, Nashville warbler, blue-winged warbler, mourning warbler, yellow warbler, prairie warbler, American crow, killdeer, white-throated sparrow, field sparrow, song sparrow, chipping sparrow, indigo bunting, Eastern bluebird, mourning dove, red-tailed hawk, turkey vulture, American goldfinch, American robin, American woodcock, cedar waxwing, Eastern towhee, gray catbird, house wren, Baltimore oriole, Northern mockingbird, and Eastern phoebe.

Many mammals also depend on early successional habitat for food and cover. Mammals on or in the vicinity of the Unit that utilize early successional habitat include the red fox, gray fox, white-tailed deer, bobcat, fisher, coyote, black bear, Eastern cottontail, woodland vole, woodchuck, Southern bog lemming, and meadow jumping mouse.

G. Rare Species and Significant Ecological Communities

The New York Natural Heritage Program (NHP) is a partnership between DEC and The Nature Conservancy. The NHP conducts inventories for rare plants, animals, and significant ecological

communities. These inventories are used to identify, track, protect and help manage biodiversity. In 2004, NHP staff conducted a comprehensive inventory of all state forests in DEC's Region 7.

1. Ecological Communities

A survey of the NHP data indicates that there is a significant ecological community on the Unit. This significant community is described as a natural occurrence of a moderately large northern white cedar swamp. The site is located on the flats surrounding Beaver Creek in Madison County and covers an area of nearly 140 acres. It is protected under NY State wetland laws. Northern white cedar is the dominant vegetation along with hemlock and red maple. Dwarf raspberry and Red-osier dogwood are the characteristic shrub species found, with a variety of mosses and liverworts also abundant. The soil substrate consists of shallow peat over mineral soils located in cool poorly drained depressions. A stable high water table is fed by the seepage of minerotrophic groundwater or spring water that saturates the soils continually. Mound and depression micro topography is typical of these peatlands. This topography is produced by toppled down trees and their associated tip-up mounds formed by pulled up root systems and soils creating hummocks and hollows. An adjacent hemlock-hardwood swamp and sedge meadow is also found on the lowlands adjoining the swamp and creek. Bordering uplands consist of a mix of different successional stage hardwoods and conifer plantations.

Potential threats for this community include; hydrologic alteration as a result of beaver activity, trampling by horses off marked trails, Northern white cedar regeneration inhibited by deer, and the introduction of invasive species. Recommended management considerations are to ensure that horse traffic is limited to the marked trails, control deer numbers, and minimize possible run-off or sedimentation from logging activities. The area and number of northern white cedar swamps throughout the state have declined substantially from historic levels due to development and agricultural use. Overall this community is currently stable with a few examples of decline primarily as a result of beaver activity.

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, sivilcultural 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 4. Representative Sample Areas of Commonly Occurring Natural Communities on the Unit

Community Name	Vegetative Type	Facility Name / Stand Numbers	NYNHP Rank	Acreage
Northern White Cedar Swamp	White Cedar-Hemlock	Beaver Creek State Forest, Stands A-27, 32, 44, 48, 55, 56.1	S2S3	139.6

2. Significant Plants

In the prior management plan for the Brookfield Unit, one historical record of a rare plant, the green gentian (*Frasera caroliniensis*), and one historical report of another rare plant, the Large Leaf Aster (*Aster schreberi*) were recorded. Current NHP data indicates no records for either plant. Additionally, no new records of significant plants were identified.

3. Significant Animals

Significant animal species include those listed as Endangered, Threatened, or as Species of Special Concern. Species of Special Concern are those not yet recognized as Threatened or Endangered, but for which documented concern exists for their continued welfare in New York State.

Birds

The Atlas of Breeding Birds in New York State lists the breeding status of birds in the state. The atlas is based upon field observations of birds by volunteers and classifies their breeding status as either confirmed, probable or possible. The golden eagle (*Aquila chrysaetos*), a species listed as Endangered, is described as a possible breeder. The Northern harrier (*Circus cyaneus*), a species listed as Threatened, is also described as being a possible breeder. The Atlas indicates that four raptors and one sparrow, all of which are listed as Species of Special Concern may also be on the Unit. The Northern goshawk (*Accipiter gentilis*) has a confirmed breeding status. The Cooper's hawk (*Accipiter cooperii*) and red-shouldered hawk (*Buteo lineatus*), sharp-shinned hawk (*Accipiter*

striatus), and vesper sparrow (*Pooecetes gramineus*) are all listed as possible breeders. Generally, the raptors listed here are stable to possibly increasing; however the vesper sparrow is in some decline.

The Brookfield Unit falls within the seasonal winter range of the American bald eagle and the eastern migratory (non-breeding) range of the golden eagle. Eagle territories are large with open landscape necessary as habitat, while open coniferous forests may be utilized for supplemental habitat. Open habitat is nearly nonexistent on the Unit, but coniferous forest stands are abundant. Prey is taken from an elevated perch or by low flight. Although capable of killing large quarry such as cranes, wild ungulates, and even domestic livestock, both species of eagles subsist primarily on rodents and other moderate size mammals, and secondarily on birds. The golden eagle has a known migratory path, in which they may occasionally pass though the Unit on their way to or from their summer breeding habitat in Northern Canada. The bald eagle has shown an increased use of the major river corridors in upstate New York for suitable wintering grounds in the last few decades including both the Chenango and Unadilla river valleys flanking each side of the Unit. Bald Eagles have also expanded their breeding and nesting territories throughout upstate New York in recent years with sightings occasionally noted on the Unit.

The Northern harrier, sometimes called a marsh hawk, is a ground nester that breeds in grassy marshes, meadows, and shrublands. It is one of the few raptors in which the sexes look quite different. This dimorphism is expressed in the mottled brown color of the female contrasted with the gray back and white belly of the male. Small mammals, birds, reptiles, insects, and carrion are all eaten for food. Harriers hunt using a low slow flight over the ground, then plunge onto their prey. Hunting occurs over cultivated farm fields as well as within the breeding marsh areas.

The Northern goshawk is well known for fierce defense of its nest. It commonly attacks animals or people that approach the nest too closely. Various forest types provide suitable habitat, but especially mature forests. The goshawk often occurs even within fragmented forests, but prefers larger contiguous forests. Other birds and small mammals are hunted from a perch taken by rapid decent while maneuvering through forest vegetation or willingly crashing through it.

For the Cooper's hawk, common breeding areas consist of low alluvial forests and wooded swamps, generally in larger tracts, with nests situated near clearings or forest edges. It frequently utilizes old crow nests and is often found in a habitat similar to that of the red-shouldered hawk. For the most part it avoids urban areas, but may take advantage of good habitat near small communities. Other smaller birds are the primary prey species; an accumulated buildup of pesticides in the smaller birds may be responsible for much of the decline of this hawk.

The red-shouldered hawk prefers upland deciduous and mixed deciduous-conifer forests or bottomland hardwoods as both nesting and hunting sites. The key component for any suitable habitat is closed canopy of mature trees. Nests are almost always found near water bodies such as a swamp, river, or pond surrounded by forest. The level of understory vegetation may vary, but

sparse sub-canopies are favored for hunting. Prey consists of amphibians, arthropods, and small mammals.

The sharp-shinned hawk is the smallest of the forest hawks and shows a greater dimorphic disparity in size between the sexes than other hawks with females nearly twice the size of males. It often nests in coniferous forests, but can be found in a wide range of woodland and forest types, although it is generally not present in open areas or small woodlots. The majority of its diet consists of small birds along with some large insects and small mammals. These birds overwinter in a variety of habitats that may include both urban and suburban locations where backyard bird feeders become favored hunting grounds. This winter shift in food gathering tactics is considered to have reduced traditional seasonal migrations by many of these birds.

The greatest threat for nearly all birds of prey is the removal of forest cover and the development of existing habitat. Due to limited research, little specific information is available on management recommendations for individual species. However there are two general management recommendations that are valid for all raptors. Avoid nesting disturbance and maintain existing habitat, particularly around the nest site.

Mammals

Two bat species may be in the vicinity of the Unit that are listed as **Endangered** or Species of Special Concern. The Indiana bat, (*Myotis sodalis*) is predicted on or in the vicinity of the Unit and is listed as Endangered, by both the State and the Federal government. The other bat, the Eastern small-footed bat, (*Myotis leibii*) is listed by New York State as a Species of Special Concern.

These bats share some habitat-requirement characteristics. Both bats hibernate in caves or mines and forage near water. When the bats are in their summer ranges, they do have different roosting habits. The Indiana bat prefers to roost under the bark of living or dead trees. The small-footed bat will utilize caves, rock crevices, areas behind loose tree bark, and even abandon buildings and under bridges for summer roosting sites.

At about 3 inches tall and weighing less than ¼ ounce the Eastern small-footed bat is the smallest bat found in the state where it is also one of the least common species. Interestingly, the Adirondack region, to the north of the Brookfield Unit, contains about one half the individuals enumerated throughout its entire winter range. The small-footed bat appears to prefer rocky, forested areas, especially near coniferous forests. They feed over quite waters and wetlands, using streams and woodland trails as travel corridors between feeding areas and roost sites. Beetles, bugs, ants, and flies make up the known diet.

The most recent threat to both of these species is white-nose syndrome (WNS). Thousands of dead bats have been found in their hibernacula with evidence of WNS. WNS is associated with a newly identified fungus (Geomyces sp.) that thrives in the cold and humid conditions characteristic of the bats hibernacula. This fungus may be directly responsible for the bat deaths or it could be secondary to the cause.

There are several specific management recommendations that may be applied to help benefit and protect the small-footed bat. Maintain a mosaic of over-mature hardwoods, forest openings, water sources, and linear elements such as trails and roads. Retain large snag trees within stands, along stream courses, and around wetlands. Trees and snags with loose or fractured bark can be utilized as roost sites, may be released on the sunward side to aid in thermal heating of roosts. Preserve wetlands and other water bodies. Establish and maintain areas of regenerating forest as feeding grounds.

Reptiles

The wood turtle (*Glyptemys insculpta*) is a Special Concern Species found on or in the vicinity of the Unit. Wood Turtles will rarely be seen more than several hundred meters from flowing water. Home ranges include some form of water habitat, typically a river or stream bordered by a mix of woodlands and meadows. Within these areas they tend to occupy open sites with low canopy cover. They are rarely associated with solid stands of habitat, instead preferring a mosaic of various forest types, meadows, active agricultural fields, swamps and other wetland habitats. Wood turtles are omnivorous with a vast and varied diet. The favored source of food is the earthworm where an interesting behavior is exhibited, stomping the ground with alternating hits of the front feet. This behavior is thought to imitate the sound of falling rain causing earthworms to rise to the surface and become easy prey. The greatest threat to wood turtle populations is habitat fragmentation and modification.

H. Cultural Resources

The New York State Archeological Historic Preservation Act protects resources of cultural importance because of their historical significance. Cultural resources are finite and non-renewable resources that once destroyed cannot be returned to their original state. As a state agency the DEC is required to avoid or mitigate adverse impacts to cultural resources on the lands they manage.

A review of the New York Archeological Site Index Map indicates that there are two formally documented locations of cultural significance on the Brookfield Unit. One is a possible prehistoric site located near the banks of the Shawler Brook on Charles E. Baker State Forest. The other documented site is the remnants of the Clark saw mill complex located along Beaver Creek on the same named State forest not far from the village of Brookfield.

In addition, on the Charles E. Baker State Forest there are three known cemeteries sites that date from the early 1800's. There are also many ordinary cultural artifacts scattered throughout the Unit. Cellar holes, foundation remnants, and stone walls, provide clues about past settlement and land use. Each helps to tell the story about how the forest was cleared and transformed it into a

working landscape. Waterholes and other works constructed by the Civilian Conservation Corps displays the early history of the Unit under public ownership as the land was transformed once again back into a forested landscape. Most of these common cultural sites do not qualify as State or National Register historic resources. However, these artifacts from early settlement periods are still important cultural resources. As such, management practices are implemented to help retain and preserve these resources. Fieldstones are not sold from state forests and forest product sales are designed to avoid or limit impacts to these resources.

I. Recreational Resources

State Forests are managed for multiple uses. One of these uses is to provide the public with opportunities for many recreational pursuits in remote settings compatible with a rustic or primitive scale of development. For example, there are abundant opportunities for camping, but the camp sites are not developed to the extent that they are in State Parks or private campgrounds.

The Brookfield Unit offers a wide array of recreational activities and associated recreational facilities that the Department provides and maintains. Activities that do not require facilities, such as nature observation, hunting or trapping occur across the Unit. The most popular recreational use of the Unit is by horse riders on the Brookfield Trail System. The Brookfield Unit is managed to provide a rustic level of recreation facilities. Even at the rustic level of services available, a high quality recreational experience is available for a variety of activities. Recreation facilities and recreation opportunities on the Unit include the following:

Facilities

1. Brookfield Trail System

The Brookfield Trail System was originally designed in the late 1960's. The Brookfield Trail Systems is 90 miles long, consisting of over 59 miles of off-road trails and more than 30 miles of town roads, State truck trails and forest haul roads. Activities including horse riding, mountain biking, snowmobiling, nature observation and hiking are allowed on the Brookfield Trail System. This multi-use system consists of three color-coded sections marked by blue, red, or yellow trail tags. Each of these trail sections begin at the Assembly Area on the Charles E. Baker State Forest, where they take common routes to the south, and eventually extend throughout the Unit. The trail riding season for horse riding and mountain bike use is from May 1st to October 31st.

The trail system has many small span bridges in addition to a fifty foot long bridge crossing the Beaver Creek at the south end of Madison #12. A view north from this bridge provides a scenic panoramic vista of Beaver Creek and the adjacent wetlands and hills. See **Appendix X**, the Recreation Facilities and Infrastructure Map for the location of the Brookfield Trail System and associated facilities.

2. Madison 1, Moscow Road (Moscow Hill) Recreation Area

The Moscow Road recreation area consists of the Assembly Area and the adjacent Camping Area. The Assembly Area is a large grassy area for parking trucks with large horse trailers or RVs. The Moscow Hill Camping Area includes 14 designated camping sites which each have a picnic table. Eleven covered stall units are near the sites containing a total of 46 stalls. The camping area also has a non–potable water well and a cement floored manure pit. Facilities at the Assembly Area include four groups of horse stalls containing a total of 54 covered stalls, two covered stallion pens, a cement floored manure pit, a non-potable water well and a 20' x 40' covered picnic pavilion with picnic tables. A platform with ramp at the Assembly Area allows people with disabilities to mount their horse. Both the Camping Area and Assembly Area have a kiosk trail register and map board with a sign-in register and trail maps. Rented and maintained portable rest rooms are provided at both the Camping Area and the Assembly Area during the trail riding season. There are two rest rooms, at the Camping Area and two at the Assembly Area. At each area, one of the rest rooms is universally accessible. The rest rooms are provided contingent upon available Department funding. Trash removal is not provided. All camping is on a carry-in-carry-out basis.

3. Cherry Ridge Camping Area

Cherry Ridge Camping Area, located at Brown Road and T.T. # 8 on Madison #1, was developed through the first Unit Management Plan to satisfy demand for people who want to camp away from horses. This camping area has nine camp sites and is designated for non-horse camping use. The area also includes a trail register with site map, a hand wheel pump well with potable water for users, picnic tables and fire rings on each site and two primitive privies.

4. Dispersed Primitive Camp Sites

A primitive camp site is located on Madison 12, off the Public Forest Access Road.

A new Adirondack style lean to is located on trail #51 with a view of Woodland Pond. This project was also identified in the first UMP and constructed by DEC staff.

An additional lean-to and horse barn is located on trail #17 on Madison 1, to the east of Truck Trail 1.

A primitive site is also located on T.T. # 7 across from trail #21. This site is known as Elmer's spring.

5. Madison 12, Little Assembly Area

Additional facilities for horse riders are provided on Madison #12 along the Fairgrounds Road. Here, the day use area referred to as the "Little Assembly Area" consists of six open tie stalls, a horse water trough and day use area with a fire pit and picnic table. This site may be used for overnight camping outside of the trail riding season.

Recreation Activities

1. Horseback Riding

Equestrian enthusiasts travel from across the northeast to ride on the Brookfield Trail System. In addition to traditional horse riding, people enjoy horse-drawn carriage riding on the Unit. Trail 30 leads from the Moscow Road Assembly Area to TT 13 and is wide enough to accommodate horse drawn carriages. The carriage riders then have access to over 17 miles of truck trails on Madison #1 for their use. With the increasing popularity of this trail system, it is anticipated that horseback riding will remain one of the most popular recreational uses on the Unit for the foreseeable future.

2. Snowmobiling

Snowmobiling is also a very popular trail activity on the Unit due to the abundance of snow fall. Two snowmobile clubs maintain trails on the Brookfield forests. The Sherburne Area Snow Travelers Association (SHASTA) and the Central New York (CNY) Snow Travelers sign and maintain corridor snowmobile trails on the Unit. Both of these clubs currently have formal agreements with the Department for the maintenance and grooming of certain snowmobile trails. The CNY Snow travelers are currently under the new Volunteer Stewardship Agreement that offers a five year partnership between the snowmobile club and DEC. The SHASTA snowmobile club has a current Adopt a Natural Resource Agreement with DEC, due to expire in 2016. At that time the Department will pursue a new five year Volunteer Stewardship Agreement with the club.

There are 18 miles of designated, groomed snowmobile trails on Madison 1. Most of this distance is on truck trails. On Madison 4 and 6, there is an additional 4.7 miles of groomed trails. About three miles of this on Madison 4 is off-road, the remainder is on truck trails or town roads. An additional 59 miles of off-road trails are signed for snowmobile use, but they receive significantly less use than the groomed roads.

3. Camping

Most camping is done by horse riders. However, Cherry Ridge is becoming more popular with those who are attracted to the Unit for their enjoyment of other activities. In addition to the camping use during the trail riding season, many hunters camp at Cherry Ridge or in dispersed locations throughout the Unit during the big game hunting season.

4. Auto Touring

An interpretive auto tour brochure has been developed as identified in the first UMP and available for use by passenger vehicles driving on Charles E. Baker State forest. The interpretive auto tour has been designed to educate the public about various natural features and management practices on the Unit. Appropriate for horse and snowmobile riders as well, the tour has ten separate stops highlighting various features of the State Forest. The brochure is available on the Departments web site and sign posts along the tour routes identify the points of interest on the forest.

5. Hunting & Trapping

Big game deer hunting is the most common form of hunting on the Unit, while turkey hunting continues to increase in popularity along with the opportunity to hunt black bear as their populations increase and expand throughout the state. Active management of the deer population is an increasingly important factor in allowing forest habitats to produce viable tree regeneration, a diversity of herbaceous plants in the forest understory, and hunter harvest opportunities. Other available hunting opportunities include the pursuit of upland game birds like grouse and woodcock. Predators like coyote and fox are also present. The natural maturation of many plantation **softwoods** has severely reduced the snowshoe hare populations once found throughout the Unit but evidence of their presence can still be found where habitat requirements for the hare still exist. Snowshoe hare in limited numbers are still located on the Unit and are hunted by some. Trapping takes place on the Unit however, overall participation in trapping is minor when compared to hunting.

6. Cross Country Skiing & Snowshoeing

There is occasional use of the Brookfield trail system and associated Forest Access Roads by cross country skiers when snow conditions allow as suggested by past years trail register comments. Some people also enjoy snowshoeing on the Unit.

7. Hiking, Wildlife & Nature Observation

These activities occur across the Unit. The Unit is managed to provide a diversity of habitat conditions to support a wide variety of species. Softwood plantations provide habitat diversity at the landscape scale and offer habitat for some unusual bird species dependent upon conifers such as white-winged crossbills and red crossbills.

8. Mountain Biking

The Brookfield Trail System receives some **mountain biking** use during the posted regular riding season. There are occasional conflicts between mountain bikers and horse riders, as the bikes can rapidly approach horses from behind and startle them.

9. Fishing

Fishing resources on the Unit are limited. Beaver Creek is the largest stream on the Unit with most of the others being small headwaters or feeder streams. Generally the streams provide some opportunity for small stream trout fishing. Woodland Pond is shallow and likely only supports bullhead. The other ponds on the Unit are likely too shallow for fish habitat.

Overall Assessment of the Level of Recreational Development

It is important that recreational use is not allowed to incrementally increase to an unsustainable level. DEC must consider the impact on the unit from increased use on other management goals or other recreational uses. DEC must consider the full range of impacts, including long-term maintenance and the balancing of multiple uses.

The Brookfield Trail System has existed since the 1960's. Over the decades, the trails have received a great amount of use and have been enjoyed by thousands of people. Heavily used trails may develop erosion problems depending upon their location. Where this has occurred, the trails have been closed, rerouted or upgraded to address the issues and prevent further environment impacts. Annual trail monitoring and maintenance is done and is an important aspect of providing a large, high use recreational trail system such as this. Adequate funding is always an issue and is needed to maintain the trails and other facilities to provide an enjoyable experience and prevent unacceptable environmental impacts.

Universal Access

DEC has an essential role in providing universal access to recreational activities that are often rustic and challenging by nature, and ensuring that facilities are not only safe, attractive and sustainable, but also compatible with resources. For more information on universal access policies, please see SPSFM page 173 at http://www.dec.ny.gov/lands/64567.html.

Current recreational opportunities that have Universal Access facilities provided to ensure they are accessible to people with disabilities include the following:

- Accessible ramp used as a horse mounting platform
- Madison 6 has two trails designated for motorized access for permitted people with disabilities. The trail on the west side of Vidler Road is 1.1 miles long and the eastern trail, north of Vidler Road is 1.5 miles long.
- One partially accessible camp site at the Moscow Hill Assembly Area campground – development in progress.
- One partially accessible camp site at the Cherry Ridge camping area – development in progress.

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.

Title II also requires that new facilities, and parts of facilities that are newly constructed for public use, are to be accessible to people with disabilities. In rare circumstances where accessibility is

determined to be structurally impracticable due to terrain, the facility, or part of facility is to be accessible to the greatest extent possible and to people with various types of disabilities.

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.

Any new facilities, assets and accessibility improvements to existing facilities or assets proposed in this UMP are identified in the section containing proposed management actions.

The Department is not required to make each of its existing facilities and assets accessible as long as the Department's programs, taken as a whole, are accessible.

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

Regulations Applicable to Recreational Activities on State Forests

No fees are charged to the users of State Forest lands for recreational activities. However, a permit may be required for group activities or events. A **Temporary Revocable Permit (TRP)** is required for the following types of recreational activities on State Forests: organized and advertised events such as club-sponsored pleasure rides or scouting camporees or competitive events involving horse riding and orienteering tournaments. Chapter 5 of the Strategic Plan for State Forest Management provides specific details on the permitting process and the requirements for liability insurance.

J. Other Facilities

1. State Forest boundary lines.

The boundary line of each State Forest needs to be maintained in order to effectively manage the property. State Forest boundary lines are identified with metal signs, approximately 7"x10" in size, with the Department logo on a yellow background. The trees on the boundary line are also blazed

with yellow paint. Periodic maintenance of the signs and paint, as well as survey records, are needed to protect the integrity of the boundary lines.

Boundary Line Maintenance Schedule

Year	State Forest	Miles
2019 - 2020	Madison 1	39.4
2019 - 2020	Madison 4	10.5
2020 - 2021	Madison 6	5.5
2020 - 2021	Madison 11	7.1
2020 - 2021	Madison 12	18.6

2. State Forest Identification Signs.

Each State Forest has an identification sign, displaying the name of the forest and its acreage. The wooden signs are approximately 3' x 4' in size with yellow lettering on a brown background and fastened to a free standing wooden sign post.

Table 5. Forest Identification Signs on the Unit

Forest	# of signs	Location
Madison RA # 1,4	2	Shawler Brook Road, Quaker Hill Road.
Madison RA # 6	1	Vidler Road.
Madison RA # 11	1	Beaver Creek Road.
Madison RA # 12	1	Fairgrounds Road.

3. Trail Registers and Map Boards

State Forest Information Kiosks are weatherproof panels containing, photographs, maps, and written information relating to a specific State Forest. The Division of Lands & Forests in Region 7 is moving forward with a proposal to establish an Information Kiosk at each State Forest in the Region (9 Counties). All State Forests addressed in this UMP will have Information Kiosks installed

in the near future as Department labor and funding permits. Below is a listing of the forests and the location of existing trail registers with associated map board locations.

Table 6. Trail Registers and Map Boards on the Unit

Forest	Location
Madison RA # 1	Moscow Hill Assembly Area- Moscow Road.
Madison RA # 1	Moscow Hill Camping Area- Moscow Road.
Madison RA # 1	Cherry Ridge Camping Area- Brown Road at T.T. #8.

4. Impoundments

There are currently six earthen dams on the Unit which were constructed to create ponds. The largest and most well-known impoundment is Woodland Pond on trail # 21 in the center of the Charles E. Baker State Forest. The second dam is located a little ways west of Woodland Pond across T.T #1 and is referred to as Lost Pond. A third smaller impoundment exists along the South side of Brown Road a short ways west of trail # 25. A fourth dike was constructed on Beaver Creek State Forest on the north side of the existing gas line right of way in the far Northeast corner of this state parcel. Two other earthen dams were constructed on the north and east side of Madison # 4 close to trail # 31.

5. Parking Areas

This Unit has nine defined, designated, signed parking areas of varying size and along with numerous other, undesignated areas where people routinely park to access the Unit. The Moscow Hill Assembly Area has the most developed area and provides parking for ten or more large vehicles with trailers. The remaining sites are smaller in size and provide parking for various recreational access points throughout the Unit.

Table 7. Designated Parking Areas

Forest	Location of Designated Parking Areas
Madison # RA # 1	Moscow Hill Assembly Area.
Madison # RA # 1	Kelley Road-east side
Madison # RA # 1	County Road #24-Shawler Brook Road

Madison # RA # 1	Fire Tower site-T.T #14
Madison # RA # 4	T.T #10-off Skaneateles Turnpike
Madison # RA # 6	Vidler Road- Stand A-27 landing
Madison # RA # 12	Fairgrounds Road-Little Assembly Area
Madison # RA # 12	T.T.#1- stand B-66 campsite
Madison # RA # 12	Fairgrounds Road - at Trail #60 bridge

6. Roads

Roadways found on the Brookfield State Forests include Public Forest Access Roads, **Haul Roads**, **Access Trails**, Town Roads, County Roads, and Abandoned Town Roads. From this group, the Public Forest Access Roads, Town Roads, and County Roads are all designed for public use with motor vehicles.

Public Forest Access Roads have been built by and are maintained by the DEC. On this Unit, Pubic Forest Access Roads are also called Truck Trails (TT). The roads are constructed to standards that will provide reasonably safe travel and keep maintenance costs at a minimum. These roads are not normally plowed or sanded in the winter. Haul Roads are designed to facilitate forest products removal (e.g., use by log trucks) and they are not open to motor vehicle use. Access Trails have a low level of maintenance and provide limited access on the unit and may require a 4 wheel drive vehicle for travel. The entrances to haul Roads or Access Trails may be gated or otherwise barricaded. The historic corridors from some Abandoned Town Roads may also be found on the State Forests. These lanes are no longer suitable for motor vehicle use, however some are designated for use as recreational trails. These corridors remain important for their historic values and provide information about the cultural development of these lands. The following roads are on the Unit:

Table 8. DEC Roads on the Unit

Category	Forest	Total Amount
Public Forest Access Roads	Madison 1	18.0 mi.
	Madison 4	0.4 mi.
	Madison 11	1.1 mi.
	Madison 12	3.8 mi.
Haul Roads	Madison 1	0.7 mi.

Category	Forest	Total Amount
Access Trails	Madison 1	1.1
	Madison 11	0.6 mi.
	Madison 12	1.0 mi.
Stream Crossings		
Bridges	Madison 1	1 – 44’ long, cement
Culverts		Unknown

7. Gates

There are four metal gates on the Unit.

Table 9. Gates

Forest	# of Gates	Location	Purpose
MAD-1	1	T.T. #7 at T.T. #8	Limit Access - Administrative use only.
MAD-1	1	Truck Trail # 13 at Elmer’s Place	Limit Access - Administrative use only.
MAD-12	1	Truck Trail # 2 at terminus	Limit Access - Administrative use only.
MAD-12	1	Truck Trail # 1 and gas line ROW	Limit Access - Administrative use only.

K. Property Use Agreements

1. Deeded Rights-of-Way, Utility R.O.W., Easements, and Permits

Deeded Rights-of-Way
An easement on Madison 1 is reserved for ingress and egress. The easement is 3.5 chains long, 0.5 chains wide, and passes through stand G-109 connecting a private in-holding to other private lands to the parcel’s east.

An easement on Madison 12 is granted to Continental Telephone Co. for telephone service. The easement passes through stands A-1 and A-2 south of and generally parallel to Bliven Road.

An easement on Madison 12 is granted to the Tennessee Gas Pipeline Co. for gas transmission. The easement passes through stand B-8 approximately 0.2 miles north of and roughly parallel to an unmaintained section of Murphy Road.

Several easements on Madison 1, 11, and 12 are granted to New York State Electric and Gas for power transmission.

Madison 1
The easement follows along either side of Moscow Road, passing through stands A-6, 7, 23, and 24.
The easement follows parallel to the south side of Furman Mill Road, passing through stands C-57, 58, 59, 60, and 62.The easement is located about 500 feet south of and roughly parallel to County Route 24, passing through stands G-73, 76, and 77.

Madison 11
The easement follows along either side of Beaver Creek Road and passes through stands A-37, 44, and 45.

Madison 12
The easement follows along either side of Beaver Creek Road and passes through stands A-3, 6, 14, 18, 23, 24, 30, 34, 36.1, 36.2, 47, 57, 58, 59, and 60.

2. Property Reservations

There are two cemetery reservations on the Unit, both located on Madison 1. The first is found within Proposal T south of Truck Trail 8 approximately 0.2 miles west of Giles Road. The second reservation is located within Proposal OO on the west side of the former Morrow Road (qualified abandoned and unmaintained) approximately 0.5 miles south of Truck Trail 7 or about 0.8 miles north of the intersection between Kelly Road and Pope Hill Road.

There are two known proposal reservations for water use on Charles E. Baker State Forest. Madison 1, Pro. FFF is subject to a reserved right to use a spring and Madison 4, Pro. H is also subject to an adjoining owner's right to use a spring.

3. Revocable Permits

Traditional temporary revocable permit (TRP) use on the Unit is primarily centered around organized equestrian events held each riding season throughout the trail system. The longest

traditional use is by the New York State Horse Council with their annual fall pleasure ride held each October in Brookfield. The event has experienced over 40 years of tradition and pleasure riding.

Another long standing TRP use for the equestrian community has been the NY 100 competitive trail ride that has been held over the years on the Brookfield Trail System. This event is focused on a competitive challenge for both horse and rider on a pre-set riding course aimed at the conditioning of the race teams rather than fastest time on the course.

Today additional organizations like the New York State Plantation Walking Horse Club and the New York State Draft Horse Club hold annual pleasure rides here enjoying the wide variety of trail riding experiences that are found throughout the Unit.

A larger scale pleasure ride known as the Cross State Trail Ride which is open to equestrian members from all over the Eastern US has chosen the Brookfield Trail System for their annual ride on more than one occasion. This event is circulated to different locations and different states in the North East each year but has come back to the Brookfield on several occasions due to the popularity of the trail riding experience found here. The Cross State Trail Ride did visit Brookfield again in August 2013.

4. Uses of State Lands without Permits or Easements

The Brookfield Trail System and associated facilities are popular recreational resources. Some businesses, groups or individuals have held advertised, organized events on the Unit in the past without receiving the proper prior approval through the Temporary Revocable Permit process. This is an ongoing issue and is addressed by law enforcement as the opportunity arises.

L. Forest Health

Many factors influence forest health including species of insects, diseases, pollutants and deer. All play important roles in the ecology of the forested landscape. Insects and diseases that affect trees are constant natural forces that shape the forest. Most insects and diseases have only negligible impacts to overall forest health, and on a small scale even provide beneficial impacts. Some however, particularly invasive exotic species can be especially damaging. Important factors that currently or could potentially affect the forest health on the Unit are described below.

1. Deer Impacts on the Vegetative Composition of the Forest.

It is important to understand that the forest is an ecosystem and, therefore, not simply a group of trees. The forest is the combination of all of the physical and biological elements in the environment and their interrelationships. One of the more prominent relationships in the forest

exists between white-tailed deer and understory vegetation. The understory layer of the forest (between ground level and about 6 feet above the ground) is the feeding zone for white-tailed deer. High quality deer habitat includes areas with abundant food and cover in this zone. Typically this is described as an area with a mix of fields, shrub land, agricultural crops, **mast** trees such as beech or oaks and forest edges with some conifers for shelter. In contrast, poor quality habitat would be large areas with little food or cover in the understory, such as may exist in dense conifer stands, where little undergrowth exists. High quality habitat can ecologically support more deer while maintaining the biodiversity of forest plant species than can low quality habitat because there is a greater diversity of and more abundant food resources available, and the deer are feeding less in the forest. The lands on the Unit are of moderate to poor habitat quality while better quality habitat is available on private lands in the vicinity of the Unit.

An adult white-tailed deer eats about 5–7 pounds of plant material each day. This may not sound significant but consider for example: If the deer are feeding in the forest and they are eating tree seedlings at about 600 seedlings per pound. If they are feeding in the forest only during the seven months of November through May, each deer is eating about 750,000 tree seedlings per year. Thus, the cumulative impact of a deer population on the forest vegetation can be very significant depending upon the habitat quality.

In the forest, deer have "favorite foods". Species that deer prefer to eat include sugar maple, white ash, red maple and red oak, while vegetation that they tend to avoid eating includes American beech, striped maple, and hophornbeam. While many plants can survive occasional browsing, repeated browsing can often cause direct mortality. The species that deer tend to avoid are also generally resistant to the effects of repeated browsing. When deer populations are high, relative to the quality of the habitat, repeated, preferential browsing over many years can lead to a decrease in plant diversity and an increase in the abundance of unpalatable species. Without the recruitment of young trees and shrubs, the understory layer is eventually reduced to a small collection of undesirable species including, fern, striped maple, American beech and hophornbeam. Over time, these species can develop in high densities and interfere or prevent other more desirable species from growing.

The presence of interfering species above threshold stocking levels will prevent the establishment of other tree species, resulting in greatly reduced vegetation diversity and severely limited potential for future timber production (Bashant & Nyland, et al., 2005). Excessive deer browsing can also reduce understory plant species diversity. Forest herbaceous species sensitive to deer **browse** include trillium, Canada mayflower, and Indian cucumber. Furthermore, excessive deer browsing can have secondary impacts in the forest, such as a reduced diversity of breeding birds, due to the altered structure of understory vegetation.

New York fern, hay-scented fern, American beech, striped maple, and hophornbeam are the primary species of interfering vegetation on the Brookfield Unit. Some stands on the Unit have dense interfering vegetation that is preventing the establishment of desirable regeneration. **Sustainable forest management** requires regeneration of the forest to desirable species following

harvesting. Based upon field observations, it is presumed that deer have a generally moderate impact to forest vegetation on the Unit, however the impact can vary across the Unit.

2. Insects

a. Hemlock Woolly Adelgid (*Adelges tsugae*) - This **exotic**, or non-native, insect is currently posing a significant threat to the health of eastern hemlock across much of its natural range. Adelgid infestations can cause rapid **defoliation** of hemlock trees and can result in the complete mortality of all hemlock trees in affected stands within four years. This insect has been the focus of many recent studies in an attempt to discover methods of reducing its impact. Presently, the adelgid has not caused any significant damage to hemlock trees in Madison County. However, this insect from Asia has been devastating to hemlock in the lower Delaware and Hudson River valleys. The adelgid attacks and kills all sizes of hemlock. As of 2014, known infestations covered parts of or all of 34 counties within New York State including the five boroughs of New York City. The eastern hemlock is one of only a few native conifers found on the Unit and the most abundant. It is considered a keystone species, because it is valuable in so many ways to native habitats. It stabilizes the soil in moist areas and on slopes. It cools riparian areas in the heat of summer and provides thermal cover for deer and other wildlife during winter. Many wildlife species such as red squirrels and black-throated green warblers are strongly associated with hemlock. Current control efforts focus on the release of a beetle native to western North America where it preys on the hemlock wooly adelgid and other native adelgid species. Several other beetles are also being tested for control. If these biological controls prove unsuccessful, the long-term consequence could be the elimination of eastern hemlock from the landscape.

b. Gypsy Moth (*Lymantria dispar*) - Although present, this moth from Europe has not had significant outbreaks on the Unit. This may be due to the scarcity of its preferred oak species on the Unit. This insect has received much notoriety since it was introduced into the United States in 1868. Populations of this insect can periodically build to “outbreak levels” resulting in widespread forest defoliation. Gypsy moths will defoliate many species of northeastern trees, but they favor oaks. High populations of gypsy moths do not typically persist more than three years before they collapse. Until recently, a virus (*NucleoPolyhedrosis* Virus) has usually caused the rapid decline of Gypsy Moth populations. In recent years however, a fungus (*Entomophaga maimaiga*) has also proved to be effective in reducing moth populations. This fungus was introduced to the U.S. from Japan in 1910 and again in 1985. Its effectiveness had been dismissed until its presence was identified in seven states in 1989. Because of the presence of both the virus and the fungus, it is hoped that future Gypsy Moth outbreaks will be less severe and less frequent.

c. Forest Tent Caterpillar (*Malacosoma disstria*) - This insect can be a serious defoliator of sugar maple. Unlike other “tent caterpillars,” the forest tent caterpillar does not construct a tent on the tree branches. Most healthy hardwoods can withstand a single defoliation from this insect. The summer seasons from 2004 through 2008 have brought heavy infestations of the forest tent

caterpillar to localized areas in central New York. Numerous patches of forest canopy were defoliated in Madison County during the summers of 2008 and 2009. Many of the trees, especially sugar maple, did not survive the consecutive defoliations.

d. Eastern Tent Caterpillar (*Malacosoma americanum*) - This is the most common "tent maker" in New York State. The caterpillars build the nests in the crotches of tree branches. They prefer cherry trees and apples trees. The nests are formed in late April or early May each year and the caterpillars feed on the leaves. Most of the feeding is done from dusk through the evening hours.

e. Pear Thrips (*Taeniothrips inconsequens*) - Introduced from Europe to the United States in 1904. It attacks a variety of orchard and forest trees. There were several population explosions of Pear thrips in the northeast during the late 1980s. The outbreak of 1988 damaged or defoliated more than 1.5 million acres of sugar maple trees. In addition to causing leaf damage, Pear Thrips may also be capable of transmitting a fungal disease, maple anthracnose. This disease often coincides with Pear Thrip infestations. Maple anthracnose decreases the photosynthetic ability of leaves, which can kill trees, if they are severely infected.

f. Elm Spanworm (*Ennomos subsignarius*) (and other species of loopers) - The common name of this insect is deceiving, as it is not only associated with elm trees, but will defoliate beech, oak, hickory, maple, and ash as well. More than 20 major outbreaks have occurred in the past century. Typically, outbreaks of the Elm Spanworm succumb to mortality from a complex of natural agents, including egg parasites and larval diseases.

g. Peach Bark Beetle (*Phloeotribus liminaris*) - This insect has recently gained increased attention from foresters in the northeast due to the amount of damage it has caused to black cherry trees. Infestations of this insect can result in large amounts of gum deposits on the trunks of black cherry. The damage can significantly reduce the value of the timber and it causes a general decline in tree health. Peach Bark Beetle populations build up in the tree tops following the harvest of cherry timber. **Residual**, healthy cherry trees are then attacked. Cultural practices (e.g. reducing quantities of slash and seasonal cutting) are being investigated to minimize the negative impacts of peach bark beetles.

h. Asian Longhorned Beetle (*Anoplophora glabripennis*) - This black & white beetle with long antennae, is a native of Asia. Potential impacts from this invasive insect may be very devastating since it attacks a range of hardwood species. It prefers maple species in particular, which are major components of the northeastern forest and also important to the wood product industry. This insect was first detected in New York City in 1996. Populations of this pest have been established in central Massachusetts as well as Brooklyn and Amityville, NY. Host trees are predominantly maples. Since this pest is extremely destructive and has the potential to spread at a rapid rate, authorities are destroying all trees discovered with infestations. As of 2010, over

8,000 infested trees had been identified and removed in New York City and Long Island alone. There are no known natural factors which will limit the spread of this insect.

i. Emerald Ash Borer (*Agrilus planipennis* Fairmaire) - This metallic green beetle is native to Asia. It was first discovered in the US (Michigan) in 2002. Since that time, it has killed tens of millions of ash trees in southeastern Michigan alone, with tens of millions more lost in Illinois, Indiana, Kentucky, Maryland, Minnesota, Missouri, New York, Ohio, Ontario, Pennsylvania, Quebec, Tennessee, Virginia, West Virginia, and Wisconsin. The larva feed on the inner bark of ash trees. They will feed on trees of any size and will usually kill the tree within 3 years of infestation. Quarantine zones have been established to restrict the transportation of infected wood. EAB was first discovered in New York State in 2009, at a site in Cattaraugus County and has since been found in 17 different counties across New York as of 2014. EAB will likely become established throughout the state within the next 10 years, unless an effective control is discovered. In 2011, the Department released the *Emerald Ash Borer Management Response Plan* http://www.dec.ny.gov/docs/lands_forests_pdf/eabresponseplan.pdf which defines goals to slow ash mortality in New York State. To date this approach is showing signs of success at slowing the EAB outbreak.

j. European Pine Shoot Beetle (*Tomicus piniperda*) - This beetle, native to Europe and Asia, attacks the new shoots of pine trees, including scotch pine and red pine, stunting the growth of the tree. The USDA's Animal and Plant Health Inspection Service (APHIS) has issued regulations resulting in "quarantines" within the infested counties of New York State, and other states, to prevent the spread of this insect. These quarantines are of significance because they affect the transportation of pine logs. In general, the regulation restricts the transportation of pine logs from a quarantined area to a non-quarantined area. In 2004, nearly every county in New York State was listed as quarantined, with the exception of the eastern-most counties and the downstate area. Chenango and Madison counties are in this Federal quarantine area which regulates and limits the transportation of pine logs to sawmills out of the area.

k. Sirex Woodwasp (*Sirex noctilio*) - This exotic pest was first discovered in New York State on September 7, 2004 in Fulton, NY (Oswego County). The Sirex woodwasp is native to Europe, Asia and Northern Africa, and it attacks most species of pine trees, including red pine and white pine, which are common in New York. The female woodwasp carries a fungus (*Amylostereum areolatum*) that it deposits in the tree while laying eggs. This fungus can kill the host trees in just a few weeks. It is anticipated that the woodwasp will easily adapt to most U.S. climates. As of late summer 2006, the Sirex woodwasp had been confirmed in most counties of central New York including Madison County. Significant, localized damage to pine trees from this pest has been observed. Control methods for the woodwasp are being researched, including a biological control involving the use of parasitic nematodes.

l. Viburnum leaf beetle (*Pyrrhalta viburni*) - A non-native beetle that first appeared in NYS along Lake Ontario in 1996. It currently infests almost all of New York State except Long Island. Both

larvae and adults feed on viburnum shrubs. This insect has had a significant impact on native stands of arrowwood (*Viburnum dentatum*).

3. Diseases

a. Beech Bark Disease - This disease has caused a widespread decline in the health of American beech, and it limits the life span of these trees. Beech trees are infected when the beech scale (*Cryptococcus fagi*) punctures the bark, allowing the spores of the fungus (*Nectria coccinea*) to enter the tree. American beech saplings are still abundant in the understory of northeastern forests, however mature beech trees are declining and becoming less common.

b. Dutch Elm Disease - This disease entered North America in 1930, and it has killed most of the American elm trees in the northeastern United States. The causal agent is a fungus (*Certatocystis ulmi*) which is spread by elm bark beetles. Although the disease has killed most elms, a few resistant individuals have survived. It is still possible to find mature elm trees within the area of the Brookfield Unit.

c. Chestnut Blight - This is one of the most famous plant diseases in North America. It has resulted in the near extinction of American chestnut trees throughout their natural range. The blight is caused by a fungus (*Cryphonectria parasitica*) that enters through wounds in the bark. American chestnut was historically present on the Unit but Brookfield is at the historical northern range of this tree. Recent reforestation efforts in Charles E. Baker State Forest have established a scattering of American chestnut trees within several of the recently harvested red pine plantations. These planting efforts were part of the goal to restore these plantation stands to a more natural mixed northern hardwood forest.

4. Invasive Species

As global trade and travel have increased, so have the introduction of non-native species. While many of these non-native species do not have adverse effects on the areas in which they are introduced, some become invasive in their new ranges, disrupting ecosystem function, reducing biodiversity and degrading natural areas. Invasive species have been identified as one of the greatest threats to biodiversity, second only to habitat loss. Invasive species can damage native habitats by altering hydrology, fire frequency, soil fertility and other ecosystem processes.

The Brookfield Unit is a high use recreational facility managed for multiple uses. People are constantly travelling to the Unit from distant locations. Invasive species may potentially be introduced through natural means via wind or animals, recreational use via horses, vehicles or

firewood, forest management via logging equipment or through maintenance activities via motorized equipment. The known invasive species present on the Unit are listed below.

Table 10. Invasive Species, Pests and Pathogens Known to be Present on the Unit

Plants	Status
Buckthorn spp.	Common on Madison 12, but may be present elsewhere also.
Garlic Mustard	Common on the Unit.
Japanese Barberry	Uncommon, but present on the Unit.
Morrow's Honeysuckle	Some heavily infested areas on Madison 11 & 12 and common elsewhere on those forests. Present on all forests of the Unit.
Multiflora Rose	More common on Madison 12 but present on all forests in the Unit.
Pale Swallowwort	Uncommon on the Unit. When it is located, efforts are made to eradicate it.
Phragmites	Madison 1, Lost Pond: infested area is estimated to be <500 sq. ft.
Insects	
Gypsy moth	Present but does not cause significant tree mortality.
Diseases	
Beech Bark Disease	Common in hardwood stands containing beech. Nearly all mature beech eventually become infected resulting in the decline of the tree.
Dutch Elm Disease	Present on the unit and across the northeast, however, occasional mature elms are still found on the Unit.
Animals	
	No known invasive animal species are present that have significant impact on the Unit.

Pale Swallowwort is considered a high priority for control on the Unit due to its ability to prolifically reproduce in nearly any habitat and travel long distances on wind-blown seed. When it is located, efforts are made to eradicate it by hand digging or **herbicide** application. The Phragmites infestation on the edge of Lost Pond is a recent discovery and is a high priority for control. The other invasive species present are generally more common across Central New York and the Unit. State-wide efforts to prioritize, develop effective strategies for control, and allocate resources are needed to address these invasive species.

M. Landscape Conditions and Trends

Current Landscape Conditions

To determine the current landscape conditions, a three mile buffer was placed around the Unit to define the landscape to be used for analysis. This landscape of 140 square miles includes an area from just west of the Sangerfield River, north to upper limits of the Unadilla River watershed north of Route 20, east to Unadilla River and south to just below Route 80, east of the Village of Sherburne. This area includes the hamlets or villages of Bridgewater, Leonardsville, Columbus, East Hamilton, Brookfield, and North Brookfield.

The analysis of the surrounding landscape was done using the National Land Cover Multi-Resolution Land Characteristics, 2001 data set from the DEC Master Habitat Database (MHDB). This data was analyzed using Geographic Information System (GIS) software.

Observations from the landscape analysis are as follows:

A. The landscape is at the northern edge of the High Allegheny Plateau Ecoregion. The landscape is at the upper limits of the Susquehanna River watershed. Areas just to the north of the landscape form part of the Mohawk River watershed.
B. The landscape is 55.1% forest cover compared to 68.9% forest cover for the surrounding Ecoregion. The statewide average is 62%.
C. The Unit is a forested area in a highly fragmented landscape. Forested areas in the east south and west sides of the landscape are highly fragmented by agricultural lands. The area to the north of Beaver Creek State Forest is predominately forested and includes two State forests. To the west of the Unit lies Nine Mile Swamp, a large wooded wetland of over 3,000 acres in size.
D. The State forests on the Unit are linked with forest cover on the intervening private lands.
E. Approximately 35% of the landscape is in agricultural or open land cover. The statewide average is 18%. This relatively large amount of agricultural lands provides an abundant supplemental food source for wildlife game species such as deer and turkey as well as other grassland dependent birds.
F. Approximately 6.7% of the landscape is in shrub/scrub or seedling/ sapling vegetation. This is greater than that in the surrounding ecoregion. This cover type is scattered throughout the landscape along the interface between agricultural lands and forest land.
G. Approximately 2% of the landscape is in developed residential/ commercial land cover.
H. There are no known **old growth** forest areas in the landscape.
I. The landscape includes all of Madison-Oneida 1, Gorton Lake State Forest and most of Oneida 8, Albert J. Woodford Memorial State Forest, both located just north of the Unit. State Forest lands comprise 12%, and the State forests on the Unit comprise 10% of the total area inside the defined landscape.
J. Based upon a minimum of a 100 acre forest patch with an additional 300 foot wide forested buffer on its perimeter, the State forests in the landscape contain 35% of the available forest interior habitat in the landscape despite occupying just 12% of the

landscape area. State forests provide the "anchor" for the largest blocks of interior forest in the landscape. Thus, the State forests in the unit provide important habitat for sensitive animal species that need large blocks of forest.

K. Madison 12, Beaver Creek State Forest contains a northern white cedar swamp that is an unusual plant community type in the landscape. This 140 acre cedar swamp has been identified by New York Natural Heritage as unique biological resource.

L. The landscape is dominated by mid-aged to mature forest cover with comparatively little **early successional**, seedling/ sapling habitat.

Table 11. Land Use and Land Cover for the Landscape Surrounding the Unit Compared to Surrounding Ecoregion.

	Unit Landscape: 3 Mile Distance Around Unit		**New York High Allegheny Plateau Ecoregion** (8,709,409 acres)	
Land Use or Land Cover	Acres	% of Unit Landscape	Current Percent of Ecoregion	20 Year Forecast, Percent Change
Deciduous Forest	34,052	37.8	47.0	-0.1
Conifer Forest	5,282	5.9	6.8	- 0.1
Forest Wetland	8,580	9.5	2.9	- < 0.1
Mixed Forest	1,677	1.9	12.2	+ 0.8
Shrub & Brush Rangeland (seedling/sapling)	6,071	6.7	2.1	+ 0.9
Non-forested Wetland	390	0.4	0.2	- <0.1
Agricultural – Cropland, pasture	26,580	29.5	22.1	- 3.5
Developed, residential and commercial	1,816	2.0	4.7	+ 1.8
Open Water	441	0.5	1.1	+ < 0.1
Grass/ herbaceous	5,186	5.8	0.8	+ 0.2
Barren land – mines quarries, gravel pits	2	<0.1	0.1	+ 0.1
	90,077	100	100	

Source: Landscape data for the Unit was derived from National Land Cover Multi-Resolution Land Characteristics data set. For additional information about this data set

see: http://www.mrlc.gov/ . New York High Allegheny Plateau Ecoregion data is from NYS Strategic Plan for State Forest Management (SPSFM).

Landscape Trends

One of the most significant historical trends in the landscape is that areas of early successional vegetation have declined as abandoned farm lands have matured into forest cover. This loss of agricultural land is expected to continue in the future as shown in the table above. The Ecoregion forecast predicts a loss of agricultural land, but an approximately equal shift of an increase in shrub-brush land cover. This will provide a temporary increase in habitat for those species that can use this cover type. However, these lands will eventually grow into forest cover, losing their ability to support early successional associated species. Development of early successional cover types has been identified as a need in the SPSFM to promote habitat diversity for the many declining species of birds and other animals dependent upon early successional habitat conditions. See Section F. Wildlife Resources in this plan for information on species that require early successional habitat.

Forest management can provide early-successional habitat through the implementation of even-aged forest regeneration practices. However, private non-industrial forest lands of the region are typically treated with partial harvests leaving roughly similar **residual stand structure**s of mid-aged forests after the harvest. These privately owned forests are also usually harvested before they reach the late successional stage of development.

Late successional forests are those areas where there is a significant component of trees greater than 140 years old. Forests in this age are beginning to develop old-growth characteristics such as large size, large snags, large cavities, rough bark and large dead trees and fallen logs. While no wildlife species on the Unit are exclusively dependent upon old forest conditions for habitat, many are often associated with these types of areas. Late successional forests are also important because they may provide superior habitat quality for some species even though they are found in other forest conditions. State lands have the unique opportunity to provide late successional forest conditions on the landscape because of their long term continuity of ownership. In contrast, private lands in New York State have a relatively short average length of ownership resulting in little opportunity for the long term consistency of planning needed to allow forests to reach the late successional stage of development. Late successional forests are adequately provided in the Northern Appalachian – Acadian Ecoregion by Adirondack Forest Preserve lands, however, there is likely little of this type in the landscape surrounding the Unit.

The other significant trend is parcelization. Parcelization is the process of subdividing large parcels of land and selling them to separate individuals. Parcelization frequently occurs near State lands as these areas are deemed desirable for recreation properties. Some of the impacts of parcelization include the increased need for road maintenance or other services such as electricity in remote areas as new landowners build residences on their parcels. The forest products industry is also impacted. As large parcels of forested land are split into smaller parcels with many different

owners, it becomes difficult or impossible to profitably engage in timber management. Germain et.al., (2006) document the decline in average parcel size of nonindustrial private forest in Oneida County dropping from 36 to 24 acres between 1975 and 2000. The minimum threshold parcel size for profitability is considered between 10 – 25 acres (Germain et.al., 2006). While much of the nonindustrial private forest land remains above this threshold, parcelization of private lands continues to reduce the acreage of working forest that is available to support New York's forest product industries.

III. Resource Demands on the Unit

The charge of the Conservation Department in 1929 was to acquire lands adapted for reforestation and establish thereon forests for watershed protection, timber production, recreation and kindred purposes. Seventy-five plus years after the passing of the Hewitt Reforestation Act by the State Legislature, New York State continues to benefit from the careful management of natural resources on these State Forests.

Society's demand for natural resources continues to increase. In the United States, consumption of wood, water and non-renewable mineral resources surpasses that of other industrialized and developing countries. On a more local scale, recent trends reflect an ever steady to increasing demand for the natural resources available from State Forest lands throughout New York including those in this UMP. The recent trend of business and industry capitalizing on global markets has spurred an increased demand for both hardwood and softwood lumber production on a regional scale. The desire for more domestic sources of oil and gas by our expanding economy has also added to the demand for exploration and extraction of these natural resources from both public and private lands within New York.

Larger tracts of public ownership allow for greater flexibility in protecting, managing or extracting natural resources as compared to private lands with similar resources. Although the vast majority of land acreage throughout Central New York is held in private ownership, the individual parcels tend to be on a much smaller acreage scale as compared to the public land holdings. The private lands are held by a wide array of landowners exercising many diverse management views and actions throughout their time of ownership. Combined with frequent ownership changes and increased parcelization of existing properties, private lands and their associated natural resources tend to be in a much greater state of flux than those of the public lands.

The historic ownership of the State Reforestation Areas has allowed for several generations of resource managers to consider long range planning with a commitment to quality natural resource management. Societal views of natural resource management continually demand higher standards for sustainable practices and responsible management for the betterment of all people.

State Forests will play a vital role in the balancing of natural resource use and protection for the foreseeable future.

A. Forest Products

Timber

Timber resources on the Unit include hardwood and softwood sawtimber, **pulpwood**, and firewood. Some of the factors affecting timber demand on the Unit include timber value, distance to markets, timber species and quality, the availability or scarcity of similar timber in the area, international trade policies and market demand.

The demand for timber on the Unit is part of the larger regional timber market which is part of the global market for wood products. For example: hardwood trees grown and cut on the Unit's State forests are often purchased by local loggers or sawmills, sawn into lumber at a mill within the region, and may eventually end up in a consumer product sold in Europe, Asia, or South America. The United States is a large part of the global market and has the highest per capita wood consumption of any nation on the planet. Wood products have been essential to the development of our country and continue to be an essential need of our society. As worldwide population continues to increase and the economies of other countries develop, there will be a continued long term increase in the global timber demand.

The continuous, long term management of State Forests has resulted in a timber resource of very high quality. New York's State forests have been certified through the Sustainable Forestry Initiative® (SFI®) 2010 - 2014 Standard and the Forest Stewardship Council® (FSC®) FSC-US Forest Management Standard (v1.0). This process evaluates the Department's forest management program for the use of sustainable forestry practices which have met the policies and principles of the SFI and the FSC. Certification by these organizations indicates that the landowner is using scientifically, environmentally, socially and economically sustainable forestry practices.

At the regional scale, there is a steady demand for hardwood sawtimber from regional sawmills. **Appendix VI** illustrates the change in price for black cherry, white ash, hard maple, red maple and red oak based upon figures from the DEC **Stumpage** Price Report for Reporting Area "C," which includes both Madison and Chenango Counties. The graph displays the trends in stumpage prices paid for standing timber based upon data for the 2004 season through the 2013 season. Market prices for hardwood sawtimber steeply declined from 2006 to 2011. Stumpage prices did stabilize in 2012. Since then, prices for most species of hardwood sawtimber have steadily increased back to levels close to the historic highs of the early 2000's. The value of high quality hardwood logs throughout New York and the northeast had reached historic high levels in 2004-2005 until the drastic market decline that followed those years. High quality hardwood stumpage prices depend on new home construction, especially homes with high-end cabinetry and flooring. Demand for hardwood lumber and the coinciding hardwood stumpage are expected to increase when the

demand for new home construction increases and the state of the economy improves. While the local demand for hardwood sawtimber has been steady, competition for sales has declined due to a variety of factors including the presence of fewer sawmills compared to the 1990s.

The market for spruce is almost exclusively for saw logs. There are no spruce sawmills in New York State, so nearly all spruce logs are sold and trucked north to Canadian sawmills which process the logs into lumber. These Canadian mills also purchase red pine logs. The Canadian demand for spruce and pine logs fluctuates along with the general state of the economy since most Canadian mills are only hauling logs back north after they have delivered a load of retail products into New York State. The other primary factor affecting the demand for spruce logs is the demand for new home construction since spruce lumber is primarily used for wood framing.

There has been a steady demand for red pine sawtimber from regional industries which manufacture it into log homes, landscaping wood, fencing and utility poles. Because of the abundance of pine plantations on State forests and their scarcity on private lands, State lands are the primary source for the regional industries that use red pine.

The demand for softwood pulpwood is limited due to the long trucking distance to the nearest paper mills. When diesel fuel prices are high, it limits the distance from which it is profitable to ship pulpwood. Now increased trucking costs to distant markets have reduced the economic feasibility of marketing pulpwood for many local contractors, although there may be new markets available for “green certified” pulpwood.

As both plantation pine and spruce stands continue to mature, the supply of softwood sawtimber is expected to increase for the near foreseeable future. The supply of this softwood resource is expected to change over time as these stands reach and pass their economic and biological maturity.

At the local scale, there is a somewhat different demand for wood products. While many local loggers supply larger mills with hardwood logs, lesser valued products such as hemlock or larch logs and firewood can be profitably cut and sold to local markets. Hemlock and larch are often sawn by small local band mills for use in barn construction. Firewood is cut by individuals for their own use or for resale to home owners.

The demand for timber on the Unit also is an indicator of those employed in the forest products sector of the economy who views State forests as a source of work. One rough measure of this is the number of people who want to receive notice of timber sales from State forests on the Unit. Currently over 100 individuals or companies have expressed interest in purchasing timber sales within the Unit. Most of these companies or individuals are located in central New York.

The rise in hardwood timber values during the late 1990's and early 2000's has been an incentive for **selective cutting** or **high-grading** on many private forest lands in the region. This is a type of logging where the trees of highest value and quality are cut from the wood lot, leaving a forest of low quality trees with reduced potential for growing high quality sawtimber in the future. If this trend continues, the future demand for high quality timber from State forests may increase as those high quality trees become increasingly scarce on private lands.

The original softwood tree planting of the 1930s was intended to bring abandoned farmland back into productive forests. Much of this effort was to conserve and restore soil productivity and control erosion from these sites. Throughout New York, thousands of acres were planted to the various softwood species in a relatively short time frame. Since then, the opportunity to replant on State lands has been limited by the lack of newly acquired agricultural lands and the gradual succession of plantations to natural hardwood species. As the number of plantation acres on State Forests is inevitably reduced over time, the supply of softwood timber will subsequently decrease in the long run.

Non-Timber Forest Products

Non-timber forest products include all forest products except trees that are of value to people for their use. Examples include maple syrup, nuts, forest plants, fungi, decorative greens, and fish and game species.

The most sought after non-timber forest product is deer during the fall hunting season. Venison provides a source of healthy, low fat protein for the families of successful hunters. Hunters also pursue wild turkey, ruffed grouse and other game species for their food value. Trappers seek furbearers such as mink, muskrat, beaver, coyote and fox for their pelts. New York City is a center for fur garment production and sales and the largest fur export markets are in China and Russia. The demand and price for fur tends to fluctuate with winter temperatures and the economies in North America, China and Russia.

While there is little demand for other non-timber forest products, local people are known to collect leeks, berries, mushrooms and fiddleheads (immature ferns) for food. While there are no Department signs or facilities at the location, there is unauthorized collection and use of water from a ground spring on the east side of Beaver Creek Road on Madison 12.

In 2012, there were approximately 3,500 gallons of maple syrup produced on 21 farms in Madison County. This is a 19% increase from 2007 production suggesting a stronger demand for maple syrup in the immediate future. There is at least one large commercial maple product producer in the vicinity of the Unit. http://www.agcensus.usda.gov/Publications/2012/

There have been no specific requests or demands addressed to the Department for the collection of maple syrup or any other non-timber forest product on the Unit.

B. Mineral Resources

Mineral deposits available in central New York State include shale, sand, gravel, bluestone, salt, oil, and natural gas. There are presently no mining contracts, permits, or other mineral resource operations on any of the State Forests of this Management Unit. Gravel and hard rock resources exist in the areas surrounding the Unit, and operations to extract these resources are located on privately-owned land.

There is currently a broad societal demand for energy since the United States is the largest consumer of energy in the world. Natural gas is the mineral resource of greatest concern on the Unit. The 2009 New York State Energy Plan examines the State's energy consumption and projected needs to year 2018. As reported in the plan, the demand for natural gas in New York State is expected to increase by about 5% by 2020. The residential and commercial sectors in the state are expected to increase demand by about 0.6% annually. About 80% of the increase in demand is expected to come from the New York City and Long Island regions of the state. Gas wells in New York State provide for about 5% of volume needed to meet the annual state demand. The remainder comes into the state through pipelines from primarily the Gulf Coast region and Canada.

Department records indicate that over 20 gas wells have been drilled east of the Chenango River in the vicinity of the Unit, primarily in the towns of Brookfield and Sangerfield. These gas wells were drilled during the 1930s, the 1960s and again in the mid 1980's. The most recent well was drilled in 2007 in North Brookfield. The drilling of this gas well resulted in well water contamination for residents up to over ½ mile from the drilling site when compressed air was injected into the well to free a stuck drill bit. The well was subsequently plugged and abandoned.

The closest producing gas field to the Brookfield Unit is the Bradley Brook Gas Field in the town of Lebanon in southern Madison County. The Bradley Brook Field was discovered in 1999 and produces natural gas from more than fifty wells on private lands. These wells extract gas from the Oneida and Herkimer sandstone formations at depths ranging from 2,200 to 3,000 feet. These fields are shown on the New York State Gas Field Map - Department of Environmental Conservation - Division of Mineral Resources, 1986.

Recently, the new technologies of horizontal drilling and high volume hydraulic fracturing have moved gas corporations to lease thousands of acres as they seek to extract gas from the Marcellus Shale formation. Industry demand for access to the Marcellus shale formation as well as the development of gas fields in the vicinity of the Unit are the result of increased global demand for energy. This demand is expected to increase in the future, with periodic fluctuations depending upon the market price of this commodity.

In December 2014 the Governor and the Commissioners of the Department of Health (DOH) and DEC announced that the DOH had completed its public health review of NYS DEC's SGEIS on the Oil, Gas and Solution Mining Regulatory Program and recommended that high-volume hydraulic fracturing should not move forward in New York State.

Initial title review indicates the State owns the mineral estate under all State Forests covered by this Unit Management Plan, with the qualification that mineral reservations may exist and no expressed or implied warranty of title is being offered in this document. As of 2013, there are no oil and gas lease agreements pertaining to the mineral estate under the State Forests contained in this Plan. In the future, the State may receive requests to nominate some or all of the tracts contained in this Unit for oil and gas leasing. Additional information on oil and gas leasing procedures can be found in
Chapter 5 of the Strategic Plan for State Forest Management, which can be found online at http://www.dec.ny.gov/docs/lands_forests_pdf/spsfmfinal.pdf.

For further information contact the NYSDEC Mineral Resource staff, Region 8, 6274 East Avon-Lima Road, Avon, New York 14414-9591.

There is currently no public demand for sand, gravel or other hard rock mineral resources on the Unit. Under Article 7 of the Public Lands Law, any citizen of the United States may apply for permission to explore and/or extract any mineral on State lands. However, to protect surface resources, current Department policy is to decline any commercial mining application(s) pertaining to any lands covered by this Management Plan. Several shale pits are located on the Unit which are used to provide surface material for Department roads, parking areas and log landings.

C. Biological Resources

State forests were established in part, to meet the public demand for biological resources. The abandoned crop lands and eroding pastures were replanted with trees to prevent erosion and provide a timber resource for future generations. Biological resources have always been a public demand of State forests as expressed through the participation in traditional activities such as hunting, fishing and trapping. More recently, increasing interest in birding and general wildlife viewing activities, as well as the greater awareness of human impacts on the natural world has created additional interest in the management of public lands for a variety of biological-based values. These values may include commodity products such as timber or fur as well as non-commodity values such as trophy deer, small game, species diversity or old growth forests.

An important variety of biological resources exist on the Brookfield Unit. Conservation of those resources is an increasing significant societal demand. Varied habitat types across the forests

provide diverse conditions to an array of species. No comprehensive study has been made on the forests for a wholly inclusive list of species, but recognized fish, birds, mammals, reptiles, and amphibians are listed in several included appendices. More than 100 species of understory plants and over 20 tree species are known to exist on the Unit as well. In 2004 the New York Natural Heritage Program (NHP) which is a partnership between DEC and SUNY College of Environmental Science and Forestry. Natural Heritage Program staff conducted an inventory for rare plants, animals, and significant ecological communities on these forests. That inventory is used to help identify, track, protect, and manage biodiversity. The survey noted the presence of a significant ecological community in the form of a northern white cedar swamp on Beaver Creek State Forest. No rare plants or animals were documented for the Unit (see also the Rare Species and Significant Ecological Communities section).

The value of biological resources is often difficult to quantify since they are not easily measured in economic terms. The demand and potential conflict over how best to manage biological resources is expected to increase as the awareness of human induced impacts on the natural world multiply in the future.

D. Recreation Resources

The mission of the DEC Division of Lands and Forests is *"to care for and enhance the lands, forests and natural resources in the State of New York for the benefit of all through the care, custody, and control of state-owned lands, and promotion of the use and protection of all natural resources."* This is a broad mission which reflects that DEC has many other responsibilities beyond satisfying public recreation desires. Rather, recreation opportunities are provided on DEC lands that are compatible with other multiple uses and the ecosystem management approach described previously in this plan.

The Brookfield Unit is used by many for a wide variety of recreational activities. Parcelization and residential occupancy have restricted the access to private lands, resulting in an increased public use on State Forests. Activities people enjoy on the unit include, but are not limited to, pleasure driving, hunting, horse riding, horse carriage driving, snowmobiling, hiking, mountain biking, cross-country skiing, canoeing/ kayaking, camping, wildlife/ nature observation, trapping, and fishing.

In New York State, the demand for outdoor recreation is periodically assessed by the Department of Parks, Recreation and Historic Preservation (OPRHP). The most recent assessment is published in the Statewide Comprehensive Outdoor Recreation Plan (SCORP), 2009-2013 (NYS OPRHP, 2008). The SCORP examines statewide trends and demographics and the supply and demand for outdoor recreation in the state. SCORP forecasts demand for outdoor recreation activities through year 2025. While New York's population is expected to remain fairly constant through 2025, there will be a large increase in the number of people 65 and older. This aging of New York's population is the largest factor affecting future recreation trends. This will result is less future demand for highly

vigorous activities such as team and court sports and increased future demand for less physically demanding activities such as picnicking, walking and nature observation. The top ten activities enjoyed by New York residents age 60 or older that may also occur on the Unit, included relaxing in a park, visiting historic sites, walking, boating, bicycling, bird watching, fishing and camping (SCORP, 2008). There will also be increased demand for *universally accessible* recreation opportunities as the number of people with limited mobility is expected to increase due to the aging of the population.

The following information about recreation activities includes observation about how people use on the Unit for their activities combined with broader future demand information derived from the SCORP 2009-2013 report.

1. Demand for Trail-Based Activities

The most popular trail based activities include horse or horse-drawn carriage riding and snowmobiling.

Horse Riding - During the summer season, the Brookfield Trail System is used by primarily horse riders. A Department survey of weekend use by visitors to the trail system documented a total of over 5,000 visitor days during weekends in the summer of 2002. The New York 100 Competitive Trail ride and the New York State Horse Council Fall Pleasure horse rides annually attract hundreds of participants from a variety of states across the Northeast who ride on the Brookfield Trail System. The NYSHC Fall Pleasure ride has been held annually since 1968 in Brookfield. SCORP forecasts future demand to 2025 for horse riding to remain steady.

Snowmobiling - During the winter, snowmobiles are the primary use on the Unit. The Sherburne Area Snowmobile Association (SHASTA) and Central New York Snow Travelers snowmobile clubs have Volunteer Stewardship Agreements with the Department for the grooming and maintenance of the snowmobile trails. One indication of snowmobile demand is the number of registrations. The number of snowmobile registrations steadily climbed each year in New York State from 1991 to a peak during the season of 2002-2003 at about 172,200. Since then it has steadily declined to about 134,400 during the season of 2010-2011. The season of 2011-2012 had large drop in registrations to about 90,400 but that was probably due to the unusually warm and snow-free winter. SCORP forecasts a reduced demand through 2025. Reduced demand may be the result of rising gas prices combined with changing demographics. Potential future impacts from climate change may also impact this activity. The demand to route snowmobile trails onto public lands is increasing due to conflicts associated with parcelization and changes in ownership of private lands.

Hiking – SCORP reports in 2005, over three million people in New York State participated in hiking, backpacking, and rock climbing. Recreational day hikers often utilize Brookfield Trail System. Use numbers are not available for the Unit but SCORP forecasts a stable demand in the future.

Cross-country skiing/ Snowshoeing – SCORP forecasts a slight increase in demand for these activities, although the effects of climate change were not considered in the projection.

Mountain Biking – SCORP does not address mountain biking specifically. However, general bicycling demand is expected to increase slightly. This increase may be for more road biking, rather than the more physically demanding off-road mountain biking.

2. Demand for Dispersed Use Activities

Hunting & Trapping – SCORP forecasts a slight increase in participation for hunting. Trapping is not addressed. It is assumed that trapping participation will remain stable.

Camping – SCORP forecasts a slight decrease in statewide demand for camping. Demand for camping on this unit is expected to remain steady as much of it is associated with horse riding.

Fishing – There are very limited opportunities to do this activity on the Unit. Most of the streams are small headwaters or feeder streams and only a handful of ponds exist on the nine forests. Small stream brook trout fishing is the primary fishing opportunity. Demand is expected to remain stable.

Auto Touring & Nature/ Wildlife Observation – There are no specific records for local participation in this activity. The interpretive auto tour is a popular feature on the Unit. While SCORP does not address these activities, their demand is expected to increase because they are sedentary types of recreation that can be enjoyed by an aging population.

ATV Use - Currently, illegal off road vehicle and ATV use occurs on the Unit at various locations. It is unknown if this activity is increasing or decreasing. For information on DEC's policy regarding ATV use on State Forests, please refer to Chapter 5, page 213 of the Strategic Plan for State Forest Management.

For further discussion of the DEC's recreation goals and objectives on State Forests, please see Chapter 5 of the Strategic Plan for State Forest Management, which can be found online at http://www.dec.ny.gov/docs/lands_forests_pdf/spsfmfinal.pdf.

IV. Management Constraints on the Unit

A. Physical Constraints

Steep slopes
Wetlands
Geological characteristics
Soil characteristics
Climatic conditions
Storm damage
Potential insect and disease infestations and associated quarantines
Limited access
Presence of cultural resources
Electrical transmission and telephone lines
Deeded rights-of-way
Buried telecommunication lines
Natural gas collection and distribution lines
Concurrent use agreements
Fragmented configuration of State land
Vegetation composition

B. Administrative Constraints

Budget limitations
Staffing shortages
Availability of Corrections work crews
Fluctuations in wood markets
Lack of demand for some wood products
Contract procedures

C. Societal Influences

There are differing public opinions on the management practices and uses of State Forests. All opinions are considered, but the degree to which they can be satisfied will vary. There are special interest groups for hunting, horseback riding, off-highway vehicles, bird watching, and many other recreational pursuits. There are industry demands for timber, natural gas, cell tower sites, field stone, rights-of-way and more. All of these demands need to be reviewed for their compatibility with the current laws, regulations, land management policies, the environmental conditions and the objectives for the forest property. It is recognized that these societal influences are dynamic and, if the State Forest resources are to continue to benefit the interests of the public, some flexibility must be incorporated into the management of these resources.

D. Department Rules, Regulations and Laws

Appendix VII lists the Department's Rules, regulations and laws governing management activities on the Unit. For additional information on the Department's Rules, regulations and laws, see Chapter 7 of the New York State Strategic Plan for State Forest Management.

V. VISION STATEMENT

We inherited a legacy of change, from the original virgin forests to agricultural land clearing; then farm abandonment to forest reestablishment. We build upon the past and direct our future management actions to sustain a healthy forest that can be enjoyed and utilized by future generations.

By the middle of the 21st century, the Brookfield Management Unit will exhibit the following characteristics:

> *A full range of forest developmental stages will be present, ranging from the seedling/sapling condition to late successional forest.*
>
> *A diverse array of terrestrial and aquatic habitats with their associated species will be present.*
>
> *The soils, water, and wetlands will be protected from degradation.*
>
> *The combination of vegetative management, watershed protection, and continued maintenance of the Brookfield Trail System will provide the opportunity for a variety of quality recreational experiences which are compatible with the Unit's goals.*
>
> *Future management of the unit will continue to provide for forest-product based employment and other economic opportunities.*

VI. GOALS AND OBJECTIVES

GOAL 1: Provide Healthy and Biologically Diverse Forest Ecosystems.

Biodiversity is the sum total of all forms of life including genes, microbes, fungi, plants, animals and **ecosystems** (Hunter 1999). State forests are managed for a variety of resources used by society including commodities such as timber, firewood and natural gas.

The Brookfield Unit offers a unique opportunity to blend conservation of biodiversity with commodity production and public recreation because it includes large areas of relatively unfragmented forests with an extensive recreational trail system. Furthermore, these forests are under the single, stable ownership of New York State so that long-term conservation practices can be implemented.

Principles for maintaining biodiversity in working forests have emerged in the fields of conservation biology and landscape ecology and provide guidance for land management on the Brookfield Unit. Following Hunter (1999) and Lindenmayer & Franklin (2002), conserving biodiversity on the Unit will be guided by five principles:

(1) Maintenance of landscape connectivity - An example of this is the protection of undisturbed **riparian zones** and maintenance of areas of continuous forest cover.

(2) Maintenance of landscape diversity - This is the diversity, size and spatial arrangement of habitat conditions.

(3) Maintenance of stand structural complexity - This refers to the provision of and spatial arrangement of multiple forest **age classes**, sizes of live trees, snags, cavity trees and downed wood.

(4) Maintenance of the integrity of aquatic ecosystems - There is a direct association between forest conditions and water quality. In addition to providing clean drinking water, wetlands, lakes, ponds, and riparian zones provide habitat for diversity of aquatic and terrestrial species.

(5) Implement multiple management strategies at the stand, forest and landscape level - This is necessary because conservation of biodiversity requires providing suitable habitat for a wide variety of species, each of which has unique habitat requirements. In addition, if one strategy fails, there will likely be others that may provide the necessary conditions for sensitive species.

The long-term maintenance of biodiversity on any ownership is a lofty goal. Achieving this goal will be increasingly complicated in the future due to the influence of external factors on the forest environment such as acid precipitation, climate change and invasive exotic species. Furthermore, the current knowledge of many species is insufficient. In addition, the fields of conservation biology, wildlife and forest ecology continue to evolve and provide new insights on the impacts of human activities on forest resources. In the absence of sufficient knowledge, decisions in this plan have leaned toward the values of conserving forest biodiversity rather than resource extraction.

State Forests on this unit will be managed using an ecosystem management approach which will holistically integrate principles of landscape ecology and multiple use management to promote biodiversity, while enhancing the overall health and resiliency of the State Forests
Ecosystem management is a process that considers the total environment - including all non-living and living components; from soil micro-organisms to large mammals, their complex interrelationships and habitat requirements and all social, cultural, and economic factors. For more information on ecosystem management, see SPSFM page 39
at http://www.dec.ny.gov/lands/64567.html.

Objective 1.1 Protect soil and water quality by preventing erosion, compaction and nutrient depletion.

Protection of soil and water quality is one of the highest management priorities and is the foundation of sustainable forest management. Since this Unit is the headwaters for many streams which affect the quality of water in the rivers downstream. The greatest threat to water quality on the Unit is the potential disturbances to any streambed or adjacent area along with any soil erosion flowing into a water body. The following are actions that will strive to protect the soils and waters of the Unit.

Action 1.1.1 Follow the DEC Special Management Zone (SMZ) Guidelines on all areas identified as a special management zone. These SMZ areas consist of buffer strip areas surrounding water bodies, streams, wetlands, vernal pools and spring seeps. The buffered areas will have different management action restrictions along with varying buffer widths depending upon the sensitivity of the riparian area designated. These rules are designed to minimize impacts to aquatic habitats from actions associated with gas and mineral extraction or forest management. For additional information on the protection of soil and water quality as well as SMZs, see the Strategic Plan for State Forest Management pages 107-110.

Action 1.1.2 All timber harvesting and other management activities on the Unit will comply with the NYS publication Best Management Practices for Water Quality as described in the Strategic Plan for State Forest Management pages 110-112.

Action 1.1.3 Monitor BMP implementation by evaluating control structures after construction to assess effectiveness. A State wide monitoring system ~~will~~ is intended to be implemented by 2016 as per the SPSFM pg. 114.

Action 1.1.4 Restrict commercial use of water located wholly within the Unit. Wells will not be allowed to be drilled for personal or commercial water extraction. Commercial use of surface waters will only be allowed through appropriate permits or contract.

Action 1.1.5 Protect 1,817 acres of stands consisting of forested wetlands, shrub wetlands, open wetlands, ponds and riparian forests. Ponds, wetlands and riparian forests are extremely complex and diverse ecosystems that provide environmental, biological and recreational benefits. They are distinct ecological communities that support a diversity of plant and animal species not often found elsewhere in the landscape (Calhoun, p. 300, Brinson, p. 652 in Hunter 1999 and Hunter 1991).

Protection of riparian zones will maintain stream bank stability to ensure a clean supply of water and protect the habitat of native fish and other species inhabiting these areas. Timber harvesting, gas well development and road construction are not permitted in wetland and riparian forests. Logging trails may cross riparian zones using Best Management Practices to protect water quality. Riparian forests are vulnerable to impacts resulting from logging and drilling with the potential of

increasing stream sedimentation, disrupting habitat conditions and diminishing overall watershed quality. In the absence of disturbance, these areas will develop into late successional forest. See Appendix IX "Proposed Management Direction" maps.

Action 1.1.6 Protect 370 acres of steep slopes and inaccessible sites by limiting management actions. Timber harvesting will not be permitted on steep slopes in excess of 40% because the terrain is extremely vulnerable to soil erosion. Sites having conditions suitable for management are designated inaccessible if riparian, wetland and other protection zones will be impacted as a result of management activities or if the environmental cost of establishing access outweighs the benefits derived from the management activity.

Action 1.1.7 Log landings and clearings for other management activities will not be constructed on slopes exceeding 10%. Significant slope modification is necessary to establish landings on these sites and there is the potential of impacting drainage patterns and creating abrupt and permanent contrasts in landscape patterns.

Action 1.1.8 Protect the water quality and habitat of all classified trout C(t) streams by complying with recommendations from the Bureau of Fisheries and the Bureau of Environmental Permits.

Action 1.1.9 Protect the forest and streams on the Unit from impacts associated with brine application to roads.

The development of gas drilling in central New York has led to the practice of disposing gas well production fluids, known as brine, onto town roads. Brine consists of the fluids produced by a gas well after the drilling phase is completed. This practice is allowed under permit (a Beneficial Use Determination) issued from the Department's Division of Solid & Hazardous Materials. The permits may be issued when requested by a waste transporter and where approved by the town government. The permit allows the conditional spreading of gas well brine on town roads for the beneficial purposes of road de-icing, dust suppression and road surface stabilization.

The Unit contains a wide variety of road conditions, some of which are more suitable for brine application than others. Application of brine on unsuitable roads may cause negative impacts to streams, wetlands and forest vegetation due to the high amounts of salts, heavy metals and other chemicals. Unsuitable roads may contain impermeable surfaces, surfaces that cannot be graded, lack of ditches, poor drainage or pot holes with standing water.

The application of brine will not be allowed on the portions of the following town roads and Public Forest Access Roads that are on State land:

State Forest #	Town(s)	Road Name
Madison # 1	Columbus	Truck Trail (T.T.) #1
Madison # 1	Columbus	Kelley Road
Madison # 1	Columbus	Pope Hill Road
Madison # 1	Brookfield	T.T. #1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 13, 14
Madison # 1	Brookfield	Collins Road
Madison # 1	Brookfield	Brown Road
Madison # 4	Brookfield	T.T. # 10
Madison # 4	Brookfield	Quaker Hill Road
Madison # 6	Brookfield	Hibbard Road
Madison # 11	Brookfield	Meyers Road
Madison # 11	Brookfield	Beaver Creek T.T. #1, 2 (loop)
Madison # 12	Brookfield	T.T. # 1, 2

Objective 1.2 Provide forest vegetation types or features which are declining or rare in the landscape to enhance wildlife habitat diversity.

State lands comprise a significant portion (12%) of the landscape and are unique in that they have stable ownership and can be managed over long time frames for habitat conditions that can complement the surrounding privately owned landscape.

The landscape analysis used in this planning process indicates that only 6% of the landscape surrounding the Unit is in early successional shrub/scrub or seedling/ sapling vegetation. Also, due to past demands to clear land and a need for wood products in the late 1800s and early 1900s, there is little to no known late successional forests type in the landscape. The Unit contains 100 acres of open fields or grassland. The Department considers this region of the State to have only marginal potential for grassland habitat management. As a result, it is not designated as a Grassland Focus Area. While the Unit has limited potential for grassland habitat management, it can provide **seedling/sapling** early successional habitat and eventually develop late successional forest stands which are often lacking on private lands.

Early successional habitat consists of areas dominated by grass or other herbaceous vegetation, shrub lands or young (seedling/sapling) forest cover. Recent research has also shown that upland early successional habitat conditions are heavily used by a wide variety of mature forest songbirds (Vitz and Rodewald, 2006). Specifically, mature forest songbirds were found to use the interior of small clearcuts (10-23 acres) during the post-fledgling period. The species using these areas included many that are typically considered “forest interior” species including ovenbird, wood thrush and scarlet tanager. It is thought that the mature forest birds use early successional areas because of the abundant food and cover these areas provide.

Although there has been much concern among conservationists about the decline of mature forest birds, surveys have shown that species dependent upon early successional habitats are declining

even more rapidly. Much of the decline of early successional dependent species has occurred as a result of forest development on abandoned agricultural lands. In a forested landscape, even-aged management practices can provide habitat for these declining early successional species without necessarily conflicting with the needs of mature forest songbirds.

The New York State Comprehensive Wildlife Conservation Strategy (CWCS) plan recommends maintaining or increasing the amount of early successional forest and shrub land in the Susquehanna Basin. According to the CWCS, 92% of the bird species that depend upon early successional habitat are in decline in New York State. Some of the species designated in the CWCS as Species of Greatest Conservation Need that require early successional habitat include American woodcock, brown thrasher, Canada warbler and ruffed grouse. See Section F. Wildlife Resources in this plan or the CWCS, Susquehanna Basin, at http://www.dec.ny.gov/animals/30483.html for additional information.

Late successional habitat consist of forests with mature and older trees, greater than 140 years of age, being dominant in the forest canopy. Late successional forests may have been previously logged but are beginning to develop old growth forest attributes such as large tree size, large downed logs, large snags, cavities and species such as mosses, lichens, fungi and insects that are typically found in old growth forests. Hunter (1990) suggests that old forests are important because they represent the most biologically diverse portion of the successional sequence and, that with few old stands remaining, there is a scarcity of late successional habitats. These areas of significantly large and older trees also have social value and are appreciated by many people as places to camp, relax and reconnect with nature.

Action 1.2.1 Increase the amount of early successional habitat on the Unit.
Early successional habitat consists of a variety of vegetative conditions. The Unit has 113 acres of upland old field or shrub habitat that will be maintained. Over the next 20 years, early successional habitat will be provided on the Unit through even-aged regeneration harvests. Stands containing a significant amount of aspen comprising 167 acres will be managed on a 60 year **rotation** to enhance and perpetuate aspen **forest type** and early successional forest cover. Even-aged management using a 120 year rotation will be conducted on 4,954 acres of the Unit. These areas, consisting of conifer plantations and native hardwoods will provide early successional forest cover at the time of regeneration. It is expected that approximately 1,217 acres will be regenerated using the shelterwood method over the 20 year course of this plan. The Unit also contains 695 acres of seedling/sapling, open or shrub dominated wetlands that are expected to remain in this condition over the next 20 years. See Appendix IX “Proposed Management Direction” maps for locations of these areas.

Any treatments involving clearcutting will comply with the Department’s program policy *ONR-DLF-3 / Clearcutting on State Forests (2011)*. Information on this policy can be found at http://www.dec.ny.gov/docs/lands_forests_pdf/policysfclearcutting.pdf.

Action 1.2.2 Increase the amount of late successional stage forest on the Unit.
Forested areas designated to be excluded from timber harvesting which will develop into late successional forests consist of 2,698 acres of the Unit. These areas include stands excluded from timber management to protect wetlands, riparian areas steep slopes or other sensitive sites, visual buffers, areas that are inaccessible and **Natural Areas**. These protected areas are often in corridors linking streams with wetland areas to improve landscape connectivity. These areas include 262 acres of stands designated for protection or Natural Area located along Number Six Brook and 415 acres of stands designated protection or Natural Area around both Woodland and Lost Ponds. Natural Areas are forests withdrawn from timber production, natural gas exploration and other direct human disturbances. Within Natural areas ecological patterns and processes will operate without direct human intervention and, together with riparian and wetland forests, stands will develop late successional characteristics with old trees, structural complexity and a seemingly chaotic appearance. The Woodland Pond Natural Area includes the headwaters of Shawler Brook, a classified trout stream. Number Six Brook, also a classified trout stream, is within the other Natural Area. The Natural Area along Number Six Brook already has some characteristics of late successional forest. Adjacent to the designated Natural Areas are 204 acres of conifer plantations designated as future natural areas. These areas of plantation conifers will be managed to encourage the development of natural species. After the conversion to natural species has been completed, these areas will be managed as natural areas. The gradual conversion process will ultimately create a larger core reserve area of natural species surrounding Woodland Pond.

Natural areas are a critical component of any effort to conserve biodiversity because they develop ecological conditions distinct from those in forests managed for commodity production. Disturbances associated with timber harvesting and mineral extraction, however sensitive to biodiversity and environmental concerns, will trigger change that set them apart from natural areas. Natural areas also provide important reference areas against which to compare changes in working forests, such as the long term effects of timber harvesting on biodiversity. In the absence of logging and gas drilling, natural areas along with other protected stands will develop into late successional forests, conditions that are relatively scarce within the larger rural landscape of Chenango and Madison Counties.

See **Appendix IX** "Proposed Management Direction" maps for locations of protected or natural areas.

Action 1.2.3 Increase the presence of native oak and hickory species on the Unit.
In the future, climate change is expected to cause northward or altitudinal shifts in the suitable climate for tree species ranges. Climate scientists predict that New York's climate will be comparable to present day Virginia - South Carolina by 2070 - 2090. This warmer climate in the future will favor the development of an oak-hickory forest type instead of the current species mix of northern hardwoods that dominate the natural forests on the Unit. The warming is expected to exceed historic rates of change and consequently occur at a pace that will likely exceed the natural migration rate of native tree species. As the climate warms, it is anticipated that species such as

eastern hemlock, hard maple and red maple will be stressed and increasingly vulnerable to mortality from other factors such as drought and insect or disease attack.

The Unit is within the existing range of native red and white oaks and shagbark hickory; however, these species are currently absent on the State forests. Groups or patches of oaks and/or hickories will be planted on selected sites where existing pine plantations are harvested at the end of their rotation. Establishing oak and/or hickory in scattered locations on the forests will provide a future seed source for **natural regeneration** and may mitigate the severity of future impacts associated with climate change. In addition, increasing the presence of these species will increase forest diversity as well as provide a valuable food source (nuts) for a variety of wildlife species.

Objective 1.3 Protect at-risk species and significant ecological communities.

At-risk species are those species having the New York State legal status of Endangered or Threatened. Significant ecological communities are those unique areas identified by the New York State Natural Heritage Program as being significant due to rarity or high quality status. For additional information on at-risk species and communities, see the SPSFM, Chapter 3, pgs. 115-126.

A significant ecological community has been identified on the Unit: the northern white cedar swamp on Madison 12.

Action 1.3.1 Protect any known occurrences of at-risk species and significant ecological communities, identified by New York State Natural Heritage. The northern white cedar swamp will be protected from disturbances caused by timber harvesting, recreational trail development or infrastructure development associated with natural gas. Management actions may be done to improve or enhance habitat necessary for at-risk species and communities in the future.

Action 1.3.2 Conduct a survey, for rare species or communities by Natural Heritage staff as time and resources become available, of any newly acquired lands and protect any new finds of at-risk species and significant ecological communities identified by New York State Natural Heritage.

A review of the State Forest Predicted Richness Overlay GIS data layer shows the *potential* occurrence of the rare species listed in the tables below. Sites where these potential occurrences are located will be protected and/or surveyed before any potential site disturbing activities occur.

Table 12. Rare Plant Species that May Potentially Occur on the Unit

Common Name, *Scientific name*	**Habitat**
Northern Bog Aster, *Symphyotrichum boreale*	Calcareous fens, openings within coniferous swamps, sedge meadows and possible pond and lake shorelines.
Ram's-head Ladyslipper, *Cypripedium arietinum* Ait. f.	Calcareous fens, openings within coniferous swamps often associated with Northern White Cedar swamps.

Schweinitz's Sedge, *Carex schweinitzii*	Stron333gly calcareous, perennially wet, seepy habitats often in association with rich fens. Often on the margins of rivulets and small drainage channels that have strongly calcareous water.

Table 13. Rare Animals that May Potentially Occur on the Unit

Common Name, *Scientific name*	**Habitat**
Bald Eagle, *Haliaeetus leucocephalus*	Large bodies of water, such as bays, rivers, and lakes that support a healthy population of fish and waterfowl, their primary food source.
Northern Harrier, *Circus cyaneus*	Open grasslands, shrubland, and salt and freshwater marshes.

Source: State Forest Predicted Richness Overlay GIS Data Layer

Objective 1.4 Conserve and Enhance Fish and Wildlife Habitat.

This plan includes multiple strategies to conserve and enhance fish and wildlife habitat. In addition to the actions listed below, see Objectives 1.1, 1.2 and 1.3 and their corresponding actions.

Action 1.4.1 Retain snags, cavity trees, reserve trees, conifers, **coarse woody material (CWM)** and **fine woody material (FWM)** as specified in the Division of Lands and Forests policy for retention on State Forests, *ONR-DLF2 / Retention on State Forests (2011)*. This policy sets forth guidelines for maintaining or obtaining a minimum number of retention trees within a forest stand. A detailed description of the retention policy may be found at http://www.dec.ny.gov/docs/lands_forests_pdf/policysfrention.pdf.

A variety of habitat structures are necessary components for biological diversity. These structures, live or dead, serve as biological legacies, providing habitat, shelter, feeding substrates, or nesting sites for a wide array of species. This Department policy addresses the retention of these important habitat structures and features in forest stands that are actively managed for timber production. Retaining these features will maintain the habitat for the wide array of forest wildlife species that depend upon them.

Action 1.4.2 Improve habitat for Species of Greatest Conservation Need.
See Objective 1.2 corresponding actions.

Action 1.4.3 Manage North American Beaver *(Castor canadensis)* where their actions threaten rare species or ecological communities, roads, culverts, trails or other access related infrastructure. Beaver are an important part of aquatic ecosystems because of their ability to create diverse habitat conditions that are beneficial to a wide array of species. They are an

abundant species on the Unit. However, their actions can also have negative impacts to rare species or access infrastructure resulting in the need for costly repairs. Beaver problems will be addressed on a case by case basis after consultation with Bureau of Wildlife staff.

Action 1.4.4 Protect active nesting sites for raptors listed as species of Special Concern.

Many raptors in New York are listed as species of special concern. Within the Unit, these include: sharp-shinned hawk, Cooper's hawk, goshawk and red-shouldered hawk. Each species has specific habitat requirements when nesting. The birds may occupy territory seasonally, or return to the same location yearly. During breeding season, usually between April and July, human activity near nests may disrupt breeding or cause the adult birds to abandon their young. The Bureau of Wildlife staff will be consulted and management activities will be adapted to minimize disturbance to birds that are known to be nesting on the Unit. Adaptive management strategies and actions will be developed and applied on a case by case basis. These strategies may place restrictions on timber harvesting and gas exploration activities and could include: setbacks, no-cut or no disturbance zones, or seasonal restrictions. For recreational uses, actions may include trail closures or rerouting of trails.

Bureau of Wildlife Staff will monitor the nesting status after implementation of the recommended management strategies to further our understanding of the nesting behavior and protection needed for these species. When specific management strategies for individual species are developed, they will be incorporated into the management plan.

Action 1.4.4.1 Permit licensed falconers to remove only one raptor **eyas** from the Unit every three (3) years, and in compliance with ECL Article 11 and 6 NYCRR Part 173. Permits for this activity are issued by the Bureau of Wildlife.

Action 1.4.5.2 Provide and maintain forest stand types acceptable for nesting habitat for northern goshawks on the Unit. Maintain 1,986 acres of protected, mixed hardwood-conifer forest type consisting of white pine, hemlock, red pine, spruce and hardwood species for the next 20 to 25 years. A significant amount of additional suitable habitat will also be present in stands managed for timber. The suitability of these areas will shift over the landscape depending upon harvest intensity, time since last harvest and size class of the stand.

Action 1.4.5.3 Continue to cooperate with the Bureau of Wildlife's effort in monitoring and providing data for research on the status of northern goshawks and other raptors to ensure their sustainable populations and to ensure that our knowledge of the natural history and ecology of these raptors continues to increase. Regional Forestry staff will consult with Bureau of Wildlife staff when raptor nest sites are discovered in the process of planning or conducting activities on State forests.

Action 1.4.6 Protect the habitat of any other at-risk or Special Concern species discovered on the Unit.

The State Forest Pro data set indicates that bald eagle and Northern harrier may exist on the Unit. However, there are no known nest sites on the Unit for either species. Bureau of Wildlife staff will be consulted for habitat protection priorities if these or other species are found on the Unit.

Action 1.4.7 Maintain a variety of conifer species and at least 5% of existing red pine for wildlife species conservation.

Conifer trees are an important habitat feature used by a wide variety of wildlife species for shelter and cover, however one unique species dependent upon conifers is located on this Unit. According to the 2000 New York State Breeding Bird Survey published in *The Second Atlas of Breeding Birds in New York State,* a population of breeding red crossbills is located in western Chenango County with their eastern extent being in the Brookfield Unit area. The survey found that red crossbills are a probable breeding species on the Unit. As a species, they are unique because they are specially adapted to feed on conifer seeds and it is thought that they exist in this portion of the State due to the large amount of conifer plantations, located predominately on the State forests. Crossbills depend upon a variety of conifer species for food since good seed crops are sporadic for conifer tree species.

Over 5% (+/- 128 acres) of existing mature red pine will be retained in perpetuity in stands designated for protection or natural areas. Additional acres of red pine will be retained in scattered locations throughout the unit as a result of compliance with the Department's Forest Retention policy and in buffers along wetlands, streams and water bodies. Although the presence of red pine on the landscape can be prolonged by retention, they will eventually succumb to damaging high winds, ice storms, or inevitable death due to age related declining vigor. For additional information about red pine plantations, see Action 1.6.3.

Action 1.4.8 Maintain apple trees on 63 acres.
Apple trees are a food resource used by many wildlife species and are a legacy of the past settlers.

Action 1.4.9 Maintain bluebird nest boxes with cooperation from volunteers.
The Unit has 30 bluebird nest boxes in three locations on Madison 4 & 12 in or near the edges of grasslands. The boxes will be maintained provided suitable habitat supporting bluebirds continues to exist and cooperation from volunteers is available.

Objective 1.5 Monitor Ecosystem Health and Develop Response Strategies to Minimize Impacts from Damaging Agents.

Ecosystems are active and can change slowly over time or quickly from other influences. Periodic monitoring of the Unit is necessary to determine if change is occurring and if it is detrimental or beneficial to the Unit. With limited resources, it is unrealistic to monitor everything that may or can change. We can however monitor key species or community types which are indicators of a healthy ecosystem. Information gained from monitoring of forest cover and community types, rare

plant & animal species, insect and disease outbreaks and invasive species enable Department staff to decide on the appropriate actions to take.

Action 1.5.1 Conduct periodic forest inventory of the State Forests within the Unit. The inventory will be updated prior to the 10 year plan update. Forest stands which will require any silvicultural treatments will be analyzed prior to treatment. A post-harvest inventory will additionally be conducted in these stands at the end of each harvest operation.

Forest Inventory Data Collection Schedule

Year	State Forest	Acres
2020	Madison 1	8,028
2020	Madison 4	1,035
2020	Madison 6	848
2020	Madison 11	556
2020	Madison 12	2,931

Action 1.5.2 Monitor the impact of deer browsing on forest health and regeneration.
Deer have the ability to degrade forest health by eliminating species from the forest understory and ground layer through their repeated browsing. Department protocol will be followed as described in Chapter 6 of the Strategic Plan for State Forest Management. Volunteer research efforts will be supported, provided they do not conflict with this plan's goals or objectives.

Action 1.5.3 Monitor Rare Species of Special Concern through efforts by the New York Natural Heritage Program and develop an action plan as appropriate.

Action 1.5.4 Participate in the implementation of systemic statewide early detection program(s) to minimize amount of time between infestation and detection. Conduct annual insect and disease aerial surveys. As resources are available the Division will continue to conduct the aerial surveys for the entire state including this Unit.

Action 1.5.5 Monitor invasive species populations and encourage other partners or outside agencies to conduct periodic invasive species assessments of the Unit.

Action 1.5.5.1 When invasive species are found, work to eradicate the population where feasible by approved procedures. This may be accomplished through Regional staff, contracts or grant opportunities. Mechanical and/or approved chemical treatments may be applied depending upon the characteristics of the infestation. Chemical treatments will only be applied where mechanical methods will not be effective. Application of the herbicides or pesticides will be done according

to the specifications of the label to protect water quality and impacts to non-target species. All applications will comply with the State Environmental Quality Review law and State regulations.

Action 1.5.5.2 When invasive species are found, develop rapid and long term response capabilities at the local level to minimize degree of impact.

Action 1.5.5.3 Abide by all Federal and State restrictions and regulations as well as Departmental guidelines recommended in the SPSFM for the identification, prioritization and eradication of any invasive species found on the Unit.

Action 1.5.6 Support research and technology transfer on significant insects and diseases and their impacts on forest resources.

Action 1.5.7 Attempt to positively identify causal agents for all significant forest damages, in collaboration with state and local experts.

Objective 1.6 Apply forest management principals and silvicultural systems to maintain or enhance ecosystem health and biodiversity.

One of the previously mentioned principles for maintaining biodiversity is the maintenance of landscape diversity. This is the diversity, size and spatial arrangement of habitat conditions. In the process of forest management to produce wood products, foresters use two silvicultural systems which mimic natural disturbance patterns and create distinct habitat conditions. The two systems are referred to as even-aged and uneven-aged management.

Even-Aged Silviculture

Even-aged silvicultural practices are beneficial to many Species of Greatest Need early successional birds such as American woodcock, black-billed cuckoo, Canada warbler, brown thrasher and ruffed grouse as well as a wide variety of other species. Regenerating clearcuts and shelterwoods are quickly occupied by early successional bird species that require this type of habitat for breeding and feeding. Each species has specific habitat requirements which occur during the development of the new age class of trees. After a period of 10-15 years, the new forest has become established and canopy closure has occurred. At this point, many early successional species no longer use the site and species numbers continue to decline until about the 25th year after the timber harvest. After this point, mature forest bird species gradually increase in abundance as the even-aged stand develops into a mature forest.

Even-aged **silviculture** is a management system that maintains a forest stand where the trees are about the same age. Conifer plantations and hardwoods established on old agricultural lands are examples of even-aged stands. This system is desired for creating periods of early successional habitat and other forest development stages beneficial to many plant and animal species. Even-

aged silviculture also promotes natural regeneration of **shade intolerant** species such as black cherry, red oak, aspen and white ash. This system most often involves several intermediate thinning treatments in a stand over time to tend the stand and develop established regeneration. At the end of the rotation age, all or most of the overstory trees are removed to **release** a new stand of trees composed of seedlings or saplings. Rotation age on the Unit will vary from 60 to 140 years. Even-aged silviculture uses the **shelterwood, seed tree and clearcut** regeneration methods to establish a new age class of trees on the harvested site.

The clearcut method is the removal of all trees in a stand at the same time. There are insufficient amounts of desirable established regeneration present on the ground when the **overstory** trees are removed. After the harvest of the overstory trees, seedlings may become established through natural means or by tree planting. In clearcuts of 20 acres and larger, **variable patch retention** will be practiced. Variable patch retention involves leaving patches of uncut trees and large individual trees in the clearcut area. The patches provide islands of forest cover as well as seed source in the middle of the clearcut areas. The number and size of patches retained will vary depending on the size of the clearcut. The individual trees and some of the trees in the patch retention areas may blow down over time; these blown down trees will provide two important benefits to the forest ecosystem. First, they will create coarse woody material on the forest floor. Second, they will contribute to the establishment of pit and mound micro-topography. This is especially important in plantations where past agricultural practices had eliminated the natural micro-topography.

The shelterwood method is the removal of all trees in a series of two to three treatments. The trees are thinned over a series of harvests to improve the growth rate, size and species composition of the overstory timber trees and also to nurture the establishment of desirable seedlings and saplings in the understory. Finally, the removal cut is done to release tree seedlings when they are established. Most all of the overstory trees are removed in this treatment and a new stand is created. Scattered overstory reserve trees may be retained at the time of the final harvest to ameliorate the microclimate, provide future snags, cavity trees, coarse woody debris and other wildlife or visual benefits.

The seed tree method is the removal of all trees in a series of one or two treatments; this method is similar to the clearcut method except that a few individual trees or groups of trees are left to provide seed source. The remaining trees may or may not be removed once regeneration has become established.

Uneven-aged Silviculture

Uneven-aged silviculture is a system for maintaining and regenerating forest stands with at least three distinct age classes. Uneven aged silviculture mimics the natural process by which scattered older trees grow to maturity, die and are gradually replaced by young seedlings and saplings. Regeneration and control of uneven-age stand structure will be accomplished using the single tree and/or **group selection** system with periodic harvests using a 20-30 year **cutting interval**. Single tree selection is the selection of individual or very small groups of trees for harvest. Single tree selection tends to favor **shade tolerant** tree species such as hemlock, beech, and sugar maple.

Group selection is the selection of a group of trees up to 2 acres in size for harvest. This method is used to create openings for the regeneration of a greater variety of species including shade-intolerant species such as black cherry and white ash. The larger canopy gaps also promote faster growth of the tree seedlings to enable them to grow beyond the reach of deer more quickly.

As most stands on the Unit are currently even-aged, conversion to uneven-aged conditions will require a long term commitment to regenerating at least two new age classes through controlled cutting of mature trees. This will require the use of group selection in conjunction with individual tree selection. Where conditions allow, **crop trees** will be grown to a maximum diameter of 26". Other trees may be selected as **recruitment trees** to be retained permanently within the stand for wildlife habitat or their unique features on the landscape.

Some trees of unique characteristics and size will be left as **biological legacy trees** as determined by the forester and in compliance with the DEC Program Policy, ONR-DLF-2 / Retention on State Forests.

Action 1.6.1 Manage the Unit's forests using silvicultural treatments for all forest cover types at a total annual average harvest of 425 acres per year for the 20 year planning period.

Action 1.6.2 During the next 20 years, maintain at least 4,431 acres (33%) of the Unit in a conifer component comprised of both planted and naturally reproducing conifer species. Natural conifer forest types comprised of stands containing hemlock, white pine, cedar and balsam fir will be maintained on 2,698 acres or 20% of the Unit. At least 13% of the Unit will be maintained in conifer plantation forest types consisting of primarily red pine, Norway spruce and larch.

The DEC Region 7 guideline has been to maintain a minimum of 20% of each State Forest in conifer cover. Conifer trees provide a variety of special functions for many species of wildlife. Conifer forests moderate temperature extremes, which can help provide winter thermal cover, help moderate snow depth, provide shelter from wind and provide escape cover on a year-round basis. Conifer stands provide valuable habitat for many groups of wildlife species, including white-tailed deer, grouse, wild turkey and various species of raptors.

Action 1.6.3 Manage 5,026 acres (38% of the Unit) of non-native conifer plantations with the goal of eventually converting them to native hardwoods or naturally regenerated conifers. Non-native conifer plantations on the Unit consist of primarily red pine and Norway spruce along with minor amounts of white spruce and larch. A large majority of these plantations were established in the 1930's by the CCC's with the trees now about 80 years old.

Red pine is not native to this portion of New York State and is vulnerable to damage from wind storms due to it being planted on shallow soils in many areas of the Unit. While many red pine plantations have grown well for decades, they are now at or near maturity. The Unit contains

2,403 acres where red pine is the dominant species. Many sites have trees with declining vigor as indicated by thin **crown**s. Red pine is adapted to reproduce on seedbeds after a fire has occurred. Otherwise, it only appears to regenerate in areas receiving full sunlight with exposed mineral soil, such as on logging trails in clear cuts. Therefore, widespread natural reproduction of this species is proven to be very difficult on the Unit.

Over the 20 year span of this plan, 67 red pine stands, comprising 802 acres, are scheduled to be converted to hardwoods by removing the red pine. An additional 49 red pine dominant stands comprising 941 acres will be partially converted to hardwoods by removing the red pine where adequate hardwood regeneration is present and thinning elsewhere to encourage hardwood regeneration development. If half of these acres are converted to hardwoods through the removal of the red pine, then approximately half of the red pine on the Unit will be removed over the course of this 20 year plan. Eventually, it is expected that 90 - 95% of the red pine on the Unit will be converted to hardwood or spruce cover types. However, this will occur beyond the scope of this 20 year plan.

The Unit has 2,144 acres, suitable for timber management, where Norway spruce is the dominant species. Over the course of this 20 year plan, 168 acres are planned to be harvested to convert these areas to native hardwoods or to release natural spruce regeneration. An additional 1,009 acres will be partially converted to hardwoods or natural spruce regeneration where it is adequately stocked.

Over the 20 year span of this plan, current conifer percentage will be reduced by approximately 1,688 acres or 31 percent over the 20 year planning period. Harvesting of the plantations will create important early successional conditions on the Unit which will provide habitat for many declining Species of Greatest Conservation Need (see Table 3). All management of plantations will comply with the Department program policy ONR-DLF-1 / Plantation Management on State Forests (2011). More information on the Plantation Management policy can be found at http://www.dec.ny.gov/docs/lands_forests_pdf/policysfplantation.pdf .

Action 1.6.4 Manage 6,335 acres using even-aged silvicultural systems.

Action 1.6.5 Manage 2,922 acres using uneven-aged silvicultural systems.

Action 1.6.6 Harvest 1,752 acres using the variable retention system.
Variable retention is an experimental harvest system for increasing biodiversity in stands managed for timber production (Franklin et. al., 1997, Lindenmayer & Franklin, 2002). It will be applied in both even- and uneven-aged stands to increase structural complexity by permanently retaining trees, uncut patches and coarse woody debris.

Variable retention will be applied in 568 acres of uneven-aged stands and 1,184 acres of even-aged stands. Retention patches will be no larger than one acre and represent no more than 50% of the stand area. In stands with native conifers, eastern hemlock and eastern white pine will be

favored for retention. Riparian zones, wet seeps and poorly drained sites within the stand will be favored for retention and may expand upon required retention for Special Management Zones. Sites with snags, decaying logs and existing or potential cavity trees will be favored for retention. Sites with vernal pools, hedgerows, rock outcrops, abrupt **pit and mound topography**, steep slopes and other unique features will be favored for retention. Rotation in even-aged stands may be extended up to 160 years depending upon stand and site conditions. Individual wind thrown trees will not be salvaged.

The precise quantity and distribution of retention features will vary depending on analysis prior to stand treatments. Retention trees and patches will be identified during the planning of stand treatments and designated for retention. Retention features will be recorded in office inventory records. The result of these practices will be increased structural complexity providing features such as large snags, cavity trees and coarse woody debris on the forest floor. This increased structural complexity should benefit a wide array of species ranging from birds and mammals using the snags and cavity trees to woodland salamanders that need decaying logs for habitat.

6. Establish adequate regeneration of desired tree species so that within 10 years of plan implementation stands that are five years or older since being timber harvested are at least 50% stocked with desirable regeneration.

Repeated browsing by deer often results in the proliferation of interfering woody (striped maple, beech and hophornbeam) and herbaceous vegetation (hay-scented and New York fern) in the forest understory. These interfering species are either not preferred by deer or are resistant to the effects of repeated browsing. Furthermore, the presence of interfering species above threshold stocking levels will prevent the establishment of other tree species, resulting in greatly reduced vegetation diversity and severely limited potential for future timber production (Bashant & Nyland, et al., 2005).

Excessive deer browsing can also reduce understory plant species diversity. Forest herb species sensitive to deer browse such as trillium, Canada mayflower, Indian cucumber and others can be severely reduced in abundance or eliminated after years of repeated browsing. Furthermore, excessive deer browsing resulting in altered understory plant communities can have secondary impacts such as reducing the diversity of breeding birds.

The Department will use the following strategies to achieve successful regeneration:

6a. Increase the intensity of the timber harvest using large group selection and patch cuts along with individual tree selection in stands designated for uneven-aged management.
Including the use of large group selection and patch cuts along with individual tree selection will create larger canopy gaps, up to one acre in size. This will have a variety of benefits including the potential for both shade tolerant and intolerant species of forest regeneration. Any regeneration

that does become established in the larger gaps should grow at a faster rate, so that it can grow above the reach of deer more quickly.

6b. Remove interfering vegetation at select locations where it dominates the forest understory.

Interfering vegetation typically consists of dense stocking of New York or hayscented fern, beech, striped maple or hophornbeam in the forest understory. In areas where they dominate the forest understory, they can prevent the establishment of other species. Where interfering vegetation exceeds threshold levels and limits the establishment of desirable tree species, a variety of methods will be used to reduce its dominance in the understory. These methods will include cutting of individual stems and herbicide application where necessary. Herbicides will only be applied where mechanical methods will not be effective. When herbicides are applied, the least toxic and most specific type of application will be used to achieve the desired objective. The preferred methods include backpack spraying of the foliage and applying herbicide to the cut stumps or bark of individual trees. The application methods will also include provisions for protecting future stand species diversity since the objective is not to eliminate all interfering vegetation, but to reduce its dominance to allow other species to grow. Application of the herbicides will be done according to the specifications of the label to protect water quality and impacts to non-target species. All herbicide applications will comply with the State Environmental Quality Review law and State regulations.

Table 14. Present and Future Cover Types

Vegetation Type	Present Acres	% of Unit	Objective Acres	% of Unit
Northern Hardwoods	3,788	28%	6,710	50%
N. Hardwoods & Natural Conifer	2,598	19%	2,699	20%
N. Hardwoods & Plantation Conifer	1,230	9%	2,475	18%
Plantation Conifer	4,518	34%	211	2%
Brush, Apple	168	1%	189	1%
Ponds & Wetlands	765	6%	765	6%
Old Field	100	1%	118	1%
Roads, Shale pits	229	2%	229	2%
Total	**13,396**	**100 %**	**13,396**	**100 %**

Summary of silvicultural objectives

	6,335 acres even-aged management direction
	2,922 acres uneven-aged management direction
	3,707 acres protected/ natural area, future natural area management direction
	192 acres old field, apple, brush management direction
	229 acres other (roads & shale pits)
Total:	13,386 acres

GOAL 2: Protect and Maintain State Forest Assets and Visual Resources of the Unit

State Forest assets on this Unit include historic or cultural resources, vehicle access infrastructure, shale or gravel pits, and boundary lines. This Unit also includes many visual resources important to the public such as views from the camping areas, assembly areas, and scenic views from roads, trails, rivers and streams. The importance of the visual resources and the public's perception will always be considered in the decision making and implementation of activities on this Unit.

Objective 2.1 Preserve and Protect Historic and Cultural Resources on the Unit

Historic and archaeological sites located on State Forests, as well as additional unrecorded sites that may exist, are protected by provisions of the New York State Historic Preservation Act (SHPA-Article 14 PRHPL), Article 9 of the Environmental Conservation Law, 6NYCRR Section 190.8 (g) and Section 233 of Education Law. Unauthorized excavation and removal of materials from any of these sites is prohibited by Article 9 of Environmental Conservation Law and Section 233 of Education Law. In some cases additional protection may be afforded these resources by the federal Archaeological Resources Protection Act (ARPA). *(SPSFM pg141)*

Cultural resources on the Unit offer clues about the historic relationship between people and nature. Farm sites, graveyards, stonewalls and similar artifacts reveal cultural practices and provide clues about settlement patterns. Preservation of cultural resources will ensure that future generations have access to information about the past.

Action 2.1.1 Many sites of cultural significance have been identified including three cemeteries. All cultural resource sites, including new discoveries, will be protected from disturbances associated with timber harvesting, well site construction and recreational activities. Stone walls and other structures will not be dismantled and efforts will be made to accommodate access using

existing gateways. Hedgerows, shade and fruit trees, and other ornamental plants associated with cultural sites will not be harvested.

Action 2.1.2 Follow all standard operating procedures for managing historic and cultural resources once developed and implemented as part of the SPSFM stated actions (HC Action 1).

Action 2.1.3 Implement a systematic and comprehensive archaeological inventory of the Unit as outlined in the SPSFM actions HC Action 2.

Objective 2.2 Maintain and enhance vehicle access infrastructure which includes forest access roads, haul roads, access trails, gates, parking areas, bridges and associated facilities.

Action 2.2.1 Implement a standard process as identified in the SPSFM (pg 168) for assessing State Forest infrastructure needs and assign maintenance schedule priorities and budgets.

Action 2.2.2 Maintain 23.3 miles of access roads, one road bridge and all road culverts.
These roads provide the primary means of access for these forests. Routine upkeep includes ditch and culvert maintenance. The road sides are mowed annually. Periodic maintenance includes grading and crowning every other year and periodic road resurfacing with new gravel or shale and culvert replacement. During this 20 year plan, 9 miles of the access roads will be resurfaced and have the culverts replaced.

Action 2.2.3 Maintain six shale and gravel pits to provide material for the maintenance of Department facilities.
These shale pits will be maintained to provide surface material necessary for roads, trails, parking areas, log landings and camp sites. Shale or gravel extracted from these pits will be utilized exclusively for State land construction projects and will not be made available for commercial use. If annual extractions are determined to be greater than 1,000 tons or 750 cubic yards of material, then a mined land reclamation and recovery plan will be required. Regional staff from the Division of Minerals will be consulted at that time.

Objective 2.3 Maintain Boundary lines to identify State property and prevent timber theft and encroachments

Establishing visible boundary lines is a basic requirement for resource management and protection.

Action 2.3.1 Repaint boundary lines on a seven-year cycle utilizing the DECs Operations crews.

Year	State Forest	Miles
2019 - 2020	Madison 1	39.4
2019 - 2020	Madison 4	10.5
2020 - 2021	Madison 6	5.5
2020 - 2021	Madison 11	7.1
2020 - 2021	Madison 12	18.6

Action 2.3.2 Identify and complete survey requests through the Bureau of Real Property as priorities and budgets allow.

Objective 2.4 This Unit will be managed so that the overall quality of the visual resources is maintained or improved.

State lands are dominated by forest cover which has created a unique visual character of these areas compared to roads through private lands. The visual resources of the Unit will be considered when planning management actions near roads, trails or high use recreational facilities. The visual quality along these roads and trails today is different than what it was 50 years ago and will change in the future. The forests on the Unit are a dynamic resource that is constantly changing in response to human or natural events. Timber harvesting, insect or disease infestation, or extreme weather events all have the ability to impact and change this visual resource. For additional information on the management of visual resources, see the *SPSFM, 2011, pg127*.

Action 2.4.1 Manage 82 miles of road and trail corridors for visual qualities associated with a forested landscape.

The Unit includes 59 miles of off-road trails and 23 miles of DEC roads. The visual resources along these corridors will be considered when planning management actions. Hazard trees will be removed for road maintenance. Trees along roads or trails may be harvested or retained depending upon site conditions and specific management objectives. The forest will change in response to management actions and natural events but a forested character will remain along road and trail corridors. Fallen tree tops will be hauled back from trails and roads and the tree tops in the corridors will be cut down close to the ground to maintain visual qualities.

Action 2.4.2 Protect the visual resources and character around high use recreational sites including the Moscow Hill Camping and Assembly Areas and Cherry Ridge Camping Area. Over 100 acres of forest will be excluded from harvesting adjacent to these high use sites.

Action 2.4.3 Follow all guidelines, yet to be developed for visual impact assessment and mitigation around timber harvests, mineral extraction sites and infrastructure. The SPSFM has

scheduled this guidance to be developed and will include an updated Timber Management Handbook.

Action 2.4.4 Follow all visual resource protection requirements identified in the DEC policies for retention, plantation management and clearcutting.

Action 2.4.5 Construction materials which are aesthetically pleasing and complement the setting will be used for the construction of any necessary structures or barriers on the Unit.

Action 2.4.6 Place kiosks providing information on the Unit in locations where appropriate to reduce sign pollution by replacing multiple signs.

Objective 2.5 Maintain the water impoundments of Woodland Pond and Lost Pond on Charles E. Baker State Forest

Action 2.5.1 Inspect the man-made earthen dikes and water level control structures of both Woodland and lost Ponds. Evaluate the structural integrity of each dike and associated infrastructure and identify any potential maintenance needs. The Department to plan accordingly for any negative findings.

Action 2.5.2 Mow the earthen dikes of both Lost and Woodland ponds on an annual basis to prevent encroachment of unwanted tree or shrub growth.

GOAL 3: Provide Forest Based Recreational Opportunities Compatible with the Units Resources.

State lands offer opportunities for recreational activities that are best enjoyed in remote, relatively undisturbed natural areas. Such activities typically require only a minimum of facility development or site disturbance. Activities meeting these criteria are compatible with maintaining and protecting the natural character and features of State land. Visitors to State Forests do not pay admission fees, and limited facility development and associated construction and maintenance costs are consistent with this principle.

In managing the recreational resources on the Brookfield Unit many factors are considered. Constraints consist of property size, shape, topography, soils, access, wetlands, streams, existing uses, capital, staff, suitability, as well as enacted rules, regulations, policies, and laws. Other factors like nearby recreational opportunities, public input, history, cover type, maintenance, environmental impact, and general demand are considered also.

For further discussion of DEC recreation goals and objectives for State Forests, see Chapter 5 of the Strategic Plan for State Forest Management
at http://www.dec.ny.gov/docs/lands_forests_pdf/spsfmfinal.pdf .

Objective 3.1 Provide recreational opportunities compatible with the resources on the Unit and maintain recreational facilities to ensure ecosystem sustainability.

State forests are best suited to low impact recreational activities that require a minimum amount of facility development and maintenance. This Unit contains more recreational facilities than most State Forest areas. Recreational activities shall not have negative impacts to rare species or ecological communities or cause degradation of the soil, water or vegetation resources on the Unit. This objective focuses on the tasks needed to provide and maintain high quality recreational facilities while also protecting the environmental integrity of the Unit.

Action 3.1.1 Continue to maintain the Moscow Hill Assembly Area and all designated camping areas or sites on the Unit in a "rustic manner" for safe and enjoyable public use as provided for the last 40 plus years.
Maintenance will include the following:

- Periodic mowing of the Moscow Hill Assembly Area and Camping Area and the Little Assembly Area.
- Periodic horse manure removal from the 100 horse stalls at the Moscow Hill Assembly Area and Camping Areas.
- Provide rented portable out houses during the trail riding season as funding allows. Two port-a-johns will be provided at the Moscow Hill Assembly Area and two will be provided at the adjacent Camping Area.
- Maintain the 100 horse stalls, 2 stallion pens, picnic tables, picnic pavilion, 2 water wells and other structures at these sites as needed.
- Maintain all facilities in a rustic manner consistent with natural surroundings.

Action 3.1.2 Continue to maintain the 59 miles of off-road Brookfield Trail System for safe, enjoyable and environmentally sustainable recreation use. The trail system is the focus for much of the recreation use on the Unit and is used by hundreds of horse riders, snowmobilers and mountain bikers each year. Regular maintenance is required to provide a safe and environmentally sustainable trail system. Maintenance will include the following:

- Annual spring trail inspection to identify downed trees, or other trail maintenance needs.
- Periodically close individual trails as needed to prevent environmental degradation and protect user safety. The trails will be closed through the posting of "Trail Closed" signs. Individual trails may be closed if critical trail maintenance is needed but cannot be done

due to inadequate staff or funding. Trails will also be occasionally closed to protect user safety when the trails are in active timber sales.

- Maintain the trails to prevent soil erosion performing trail maintenance as needed. In some cases, it may be more desirable reroute portions of trails or if necessary, permanently close trails to prevent soil erosion.

Action 3.1.3 Update the existing facilities Inventory as recorded by the Division of Operations under their Maintenance Management System (MMS) for a complete inventory of all existing wooden bridges, boardwalks and culverts on the Brookfield Trail System. All trail structures need to be inventoried recording their location, size and condition status to include additions or eliminations don to the trail system since the inception of the MMS program. This updated information will aid in planning for the maintenance or replacement of these structures.

Action 3.1.4 Replace an average of at least five of the wooden bridges and/or boardwalks each year on the trail system with culverts and/or gravel hardened trail surfaces. The Brookfield Trail System contains numerous wooden bridges and wooden boardwalks. These wooden structures were installed during a period when the Department had access to lumber through a DEC sawmill and a regular labor force from the minimum security prison at Camp Georgetown. The sawmill and Camp Georgetown have both closed so the abundant materials and labor are no longer available. The wood bridges and boardwalks are deteriorating and need to be replaced with more permanent trail improvements to maintain a safe and environmentally sustainable trail riding experience.

Action 3.1.5 Maintain the Cherry Ridge Camping Area, the Little Assembly Area camp site/day use area, the lean-to and eight stall horse barn on Trail #17, the lean-to on Trail #51 near Woodland Pond and the primitive camp site on T.T. #7 known as Elmer's Spring. Maintenance activities include periodic water testing at the Cherry Ridge well, mowing, structure maintenance, and litter removal.

Action 3.1.6 Continue partnering with the various organized user groups including the New York State Horse Council, Plantation Walking Horse Club and both the Sherburne Area and Central New York Snowmobile Associations to help maintain the Brookfield Trail System through their respective Adopt-A-Natural-Resource agreements (AANRs). If maintenance of the area becomes an issue, other actions may be taken to address needs, which could include further restricting use, or closure of certain portions of the facilities or trail system.

Action 3.1.7 Encourage groups or individuals to participate in volunteer programs to help maintain the Brookfield Trail System and other recreational facilities on the Unit. The Department's ability to provide the needed funds and staffing to adequately maintain or improve the recreational facilities is limited. Help from volunteers can be instrumental in improving, maintaining or preventing closure of recreation facilities. The ***Volunteer Stewardship Program***

allow volunteers the opportunity to ***participate*** in activities that help the Department to achieve the goals and objectives for the Unit.

Public group activities may include group hikes, historic tours, birding walks or surveys, organized group horse or snowmobile events and other Department approved group activities. Maintenance activities suitable for volunteer participation include upkeep of trails, lean-tos, parking areas, camping sites, cultural resources and wildlife habitat. Group activities involving 10 or more people may require a special permit. Applications and information are available through the Sherburne Lands & Forests office.

Action 3.1.8 Formally designate eight additional single camp sites outside of the main campgrounds on the Unit. Six of these sites are located on Charles E. Baker State Forest. They include the two existing lean-tos, one site at Lost Pond off T.T. #5 and another site known as Elmer's spring off T.T. #7 across from trail #21 and two at the loop on T.T. # 14. The two remaining designated sites are located on Beaver Creek State Forest. One of these sites is located on the truck trail, at the hilltop, within the red pine stand B- 66 and the other site is part of the Little Assembly Area along Fairgrounds Road.

Each of these sites have been developed for primitive camping over the years but never formally designated. Designating these sites will allow the Department to better regulate use of them and give opportunity for camping outside of the more developed campgrounds on the Unit. Standard DEC State Forest camping rules and regulations will apply. Overnight stays longer than three days and/or groups of ten or more are required to first obtain a camping permit from the Forest Ranger.

Action 3.1.9 Designate the camp site on Madison 12, at the Little Assembly Area for overnight camping only from November 1st to April 30th. This area is a day use area during the trail riding season. During the closed trail season, overnight camping is allowed.

Action 3.1.10 Continue to allow dispersed recreation activities for which no trails or amenities exist or will be provided, such as hunting, trapping, hiking, fishing and nature observation.

Action 3.1.11 Maintain and manage the recreational facilities to provide a safe user experience. The following actions will be done to enhance public safety:

- Annual inspection of Moscow Hill camping and Assembly areas and Cherry Ridge Camping Area for hazard trees or other safety issues.
- Periodically close trails impacted by timber harvests.
- Inspect the trail system on at least an annual basis for hazard trees or other safety issues.
- Periodically review trail registers for any safety issues identified by the public.

Action 3.1.12 Prohibit public ATV use on the Unit in accordance with the Department's State Forest ATV policy as stated in the Strategic Plan for State Forest Management, 2010.

As described in the SPSFM, ATV use is only compatible with State Forest management goals under the following conditions.

As stated in the Strategic Plan for State Forest Management:

"…the Department will not permit ATV use on State Forests, except;

- as may be considered to accommodate a "connector trail" through Unit Management Planning or a similar public process; and
- on those specific routes designated for use by DEC-issued Motorized Access Permit for People with Disabilities (MAPPWD)."

"It is the policy of the Department of Environmental Conservation to: (1) prohibit ATV use on public lands managed by the Department; (2) allow ATV use by persons with disabilities pursuant to the terms of a CP-3 permit or Non-Ambulatory Hunting permit; and (3) continue to consider the suitability of roads and trails for public ATV use to access recreational programs on conservation easements managed by the Department in accordance with the criteria set forth herein."

Action 3.1.13 Install motor vehicle barriers to prevent illegal off-road motor vehicle use and trash dumping.

Remote trails and roads accessible by vehicles are often sites chosen for illegal dumping of trash or are used for illegal bon fires and beer parties. Blocking vehicle access at or to these sites will mitigate this problem and reduce costs for maintenance and law enforcement. Vehicle access will be blocked at the following locations:

- The entrance to the shale pit on Madison RA #1, on T.T. #7.
- The entrance to the shale pit on Madison RA #4, on Quaker Hill Road.
- The entrance to the shale pit on Madison RA #12, on T.T. #1.

Objective 3.2 Enhance sustainable use of recreational opportunities.

Outdoor recreation opportunities are important to the visitors of this Unit. Participating in and enjoying these outdoor activities often helps us to appreciate and understand nature better. However, repeated use of the land for recreational purposes can have significant impacts. To minimize these impacts it is necessary to plan, monitor and manage the recreational use of this Unit. Based upon public input and observed demands, actions have been planned which will improve and control recreational use to increase users enjoyment while protecting and maintaining the natural resources.

Action 3.2.1 Implement Special Area regulations for the Moscow Hill Camping and Assembly Areas once formally approval by the Department under section 190 of the New York State Environmental Conservation law.

Special area regulations for the Moscow Hill Camping and Assembly Areas are needed to be instituted into Environmental Conservation Law to address problems and protect attributes in the area. These new regulations would be modeled after the existing rules and regulations currently in place for Otter Creek Trail System. The proposed regulations are as follows:

190.36 Notwithstanding any other law, the following provisions apply to the Charles E. Baker State Forest; Moscow Hill Camping & Assembly Areas.

(a) Definitions for purposes of this section:

1. Moscow Hill Camping Area shall mean that 8 acre state land area located in the Charles E. Baker State Forest (Madison Reforestation Area #1) lying North of Pleasant Brook tributary and East of the Moscow Road in the town of Hamilton, Madison county, locally known as the old CCC camp.

2. The Assembly Area shall mean that 2 acre state land area located in the Charles E. Baker State Forest (Madison Reforestation Area #1) South of Pleasant Brook tributary and East of the Moscow Road in the town of Hamilton, Madison county.

3. "Same location" shall mean any of the designated camping sites maintained by the Department at either the Moscow Hill Assembly or Camping Areas.

4. Horse(s) shall mean the entire family of equidae.

5. Llama(s) shall mean all new world camelids, llamas, alpacas, guanacos, and vicunas.

6. "Household pet" means any dog or cat, and shall also mean any other domesticated animal normally maintained in or near the household of the owner or person who cares for such other domesticated animal, but shall not include exotic pets.

***(b) Seasonal Camping Regulations.** For the Moscow Hill Camping and Assembly Areas during the period of May 1st through October 31st:*

(1) Each camping party is limited to a maximum of six persons. All members of the camping party shall be listed on the camping permit and shall occupy a single site. No more than 2 vehicles with or without trailers may occupy a single site.

(2) Camping permits are valid for a maximum of 14 consecutive nights after which all members of the camping party shall vacate the facility.

(3) No person or group shall self-issue a permit for the same location in the same calendar year once a total of 14 nights have been accumulated whether consecutively or over the duration of the calendar year.

(4) A bona fide occupancy of the campsite is required.

(5) Any use of the Moscow Hill Camping Area or Assembly Area by any person who is not a member of a registered camping party is considered day-use. Day-use shall be from 7AM to 10PM. No day-

users are allowed in the facility after 10PM and before 7AM. No person other than individuals under camping permit shall remain in the Moscow Hill Camping Area or Assembly Area outside of day use hours.

(c) Horses and Llamas:

(1) All horses entering the Moscow Hill Camping or Assembly Area shall have documentation of a currently valid Coggins test and shall have been found negative for Equine Infectious Anemia. Out of state horses shall also have a valid 30 day Certificate of Health. All horses will have proof of a current rabies vaccination.

(2) All llamas entering the Moscow Hill Camping or Assembly Area are required to have a valid Certificate of Veterinary Inspection, with the animals individually identified and proof of a current rabies vaccination.

(3) Any horse or llama remaining in the Moscow Hill Camping Area or Assembly Area overnight shall be harbored in a DEC covered tie stall or, in the case of a stallion, in a stud stall, or harbored within an associated horse trailer.

(4) Stud stalls shall only be occupied by stallions.

(5) Horse stalls may only be used for storage of horses and immediately associated equipment. No other unrelated personal property may be stored in stalls.

(6) Horses or llamas shall not be tethered to trees anywhere in the Moscow Hill Camping Area or the Assembly Area.

(7) The use of temporary corrals or paddocks is prohibited.

(8) Horses or llamas shall not be run, galloped or cantered in the Moscow Hill Camping Area or Assembly Area.

(9) No person shall fail to maintain an orderly camp, including horse stalls. All manure shall be removed or deposited into designated manure pits.

(d) Household Pets.

(1) All animals, except household pets, horses and llamas, are prohibited.

(2) All household pets shall be confined on a leash or otherwise confined to restrict them to the campsite area of their owner.

(3) Dogs may be walked on a leash no more than six feet long provided they are under control at all times.

(4) No household pets shall be left unattended in the Moscow Hill Camping or Assembly Area at any time unless securely confined in a camper or enclosed trailer.

(5) All household pets in the Moscow Hill Camping Area or Assembly Area shall have proof of a current rabies vaccination.

(6) Horse, llama or household pet owners shall properly dispose of their animals' excrement in the designated manure pits.

(7) Disruptive or vicious animals and household pets shall be removed by their owner from the area whenever requested by Department personnel or ordered by law enforcement personnel.

**** (e) General Provisions**.*

(1) No person shall possess alcoholic beverages in any container with a capacity greater than seven gallons at any time.

(2) Fires are only permitted in fire rings or fireplaces provided by the Department.

(3) Quiet hours shall be observed between 10:00 p.m. and 7:00 a.m.

(4) Generators may only be operated from 8:00 a.m. to 10:00 a.m. and from 4:00 p.m. to 8:00 p.m.

(5) The possession or use of fireworks of any nature is prohibited.

(6) Camping is allowed only at sites designated by the department.

**** (f) Enforcement.***

(1) The riding of horses and llamas is restricted to designated trails or roads on Madison RA#s 1, 4, 6, 11 & 12. Riding horses off of designated trails often results in unacceptable environmental impacts and draws limited maintenance resources away from the designated trail system.

(2) Horses or llamas are prohibited horses at the Cherry Ridge Camping Area.
Cherry Ridge was constructed to allow people the opportunity to camp on the Unit, away from horses.

(3) No person shall fail to comply with a lawful instruction of an employee of the Department or law enforcement personnel.

(4) Violation of any provision of this part by any person camping under permit shall be grounds to revoke the associated camping permit and/or evict the individual violator and/or camping party from State lands.

Objective 3.3 Provide recreational opportunities that are universally accessible and comply with the Americans with Disabilities Act.

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.

Title II also requires that new facilities, and parts of facilities that are newly constructed for public use, are to be accessible to people with disabilities. In rare circumstances where accessibility is determined to be structurally impracticable due to terrain, the facility, or part of facility is to be accessible to the greatest extent possible and to people with various types of disabilities.

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.

Any new facilities, assets and accessibility improvements to existing facilities or assets proposed in this UMP are identified in the section containing proposed management actions.

The Department is not required to make each of its existing facilities and assets accessible as long as the Department's programs, taken as a whole, are accessible.

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

Universal access will be provided unless it fundamentally alters the character or recreational programs of the area. This objective strives to maximize accessibility while protecting the natural setting to the greatest extent possible, thereby preserving the fundamental experience for all. A minimal tool approach will be used to implement this vision, resulting in projects that blend into the natural environment and protect the landscape.

Action 3.3.1 Provide one universally accessible picnic table at the picnic pavilion at the Moscow Hill Assembly Area.

Action 3.3.2 Provide one ADA compliant campsite at the Moscow Hill Camping Area and one at Cherry Ridge Camping Area on Charles E. Baker State Forest. ADA sites will be signed and include a hardened level parking area and camp site, a fire ring and a universally accessible picnic table.

Action 3.3.3 Construct a horse mounting ramp and platform that is universally accessible and meets ADA standards in the Moscow Hill Camping Area.

Action 3.3.4 Provide one site at the Moscow Hill Assembly Area as an ADA compliant camp site. The ADA site will be signed and include a hardened level parking area and camp site, a fire ring and a universally accessible picnic table.

Action 3.3.5 Provide universal access to both the kiosk and pavilion locations at the Moscow Hill Assembly Area. A hardened stone dust path will be constructed from the ADA parking location in front of the pavilion leading up to both the kiosk and the picnic shelter.

Objective 3.4 Provide and enhance information on the Unit.

This Unit contains numerous recreational opportunities that can be utilized throughout the year at various locations. Some of these opportunities may not be known or apparent to the general public. Each of the opportunities may also have specific rules or regulations not explained to the public. Clear and up to date information is needed to help guide the Units users as to where the opportunities exist as well as the areas restrictions or regulations. This will improve the public's use of the Unit as well as protect the resource from inappropriate or misuse from occurring.

Action 3.4.1 Develop and install kiosks describing the recreational opportunities of the Unit including day use areas, designated camping facilities, trails, trail closures, access points and rules and regulations for State lands. Kiosks will be installed at the following locations:

- Madison RA #1 at Moscow Hill Assembly Area. The kiosk will replace the existing sign board and include a map, trail register, bulletin board and rules and regulations governing use of the area.
- Madison RA #1 at Moscow Hill Camping Area. This kiosk will include a map, rules and regulations, trail register and bulletin board.

Standard design kiosks including just a map, interpretive text and rules and regulations will be installed at:

- Madison RA #1 at the south entrance to T.T. #1 off of Shawler Brook Road.
- Madison RA #6 on Vidler Road.
- Madison RA #s 11 & 12 on Fairgrounds Road.

Action 3.4.2 Improve the availability of information to the public on the internet about the Unit. Current information about the Unit available on the DEC web site includes maps of the Brookfield Trail System, descriptions of the forests, rules and regulations, and directions to the forests.

- Provide the Brookfield Auto Tour brochure on the DEC web site.
- Update the rules and regulations on the DEC web site, after the new proposed changes are formally approved.
- Provide smart phone quick response bar codes (QR codes) at all new kiosks to access information about the Unit.

Action 3.4.3 Develop a map brochure for Madison RA #1, Moscow Road Camping Area and Assembly Area and the Cherry Ridge Camping Area. These maps will be available for public distribution and will be on the DEC web site.

Action 3.4.4 Maintain all signs communicating information to the public on the Unit. This includes:

- Identification signs for 17 Truck Trails
- 2 wooden signs identifying the Moscow Hill Camping and Assembly areas
- 5 wooden State forest identification signs
- Moscow Hill Camping Area site number signs
- Various Moscow Hill Assembly Area signs
- Cherry Ridge Camping Area identification sign
- Cherry Ridge Camping Area kiosk and site number signs
- Trail marker tabs on 59 miles of off road trails
- Interpretive auto trail signs
- Accessible parking area signs

Goal 4: Provide Economic Benefits to the People of the State

ECL §1-0101(1) provides in relevant part that "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" (emphasis added). In considering all proposed actions, DEC will attempt to balance environmental protection with economic benefit.

New York's State forests provide economic benefits to the People of the State through the variety of goods and services they produce as well as the tax revenue they provide to local communities. Goods provided by State forests include timber from the sale of forest products, fish and wildlife obtained for consumption, and potential mineral resources such as gas. Services provided by State forests include the opportunity for a wide variety of recreation activities and the services their natural ecosystems provide which help sustain and fulfill human life.

Objective 4.1 Provide a steady flow of forest products through sustainable forest management.

New York's public and private forests contribute over $8.8 billion annually to the State's economy (North East State Foresters Association, 2007) through forest-based manufacturing and forest-related recreation and tourism. Each 1,000 acres of forest land in New York supports 2.6 forest based manufacturing jobs with a payroll of $83,000 (North East State Foresters Association 2004). State forests make important contributions to these economic categories resulting in economic benefits to local communities and their larger surrounding areas.
For additional information about forest product sales from State forests, see the Chapter 6 of the Strategic Plan for State Forest Management.

Action 4.1.1 Treat an average of approximately 425 acres each year through timber sales.
Timber sold from the Unit will be purchased by businesses for manufacturing products such as construction lumber, paper, flooring, furniture, veneer, utility poles, fencing, pallets and fuel wood. These products are manufactured and sold locally and internationally in the global wood products market. The sale of timber provides jobs to loggers, truck drivers, and employees in wood products manufacturing businesses as well as revenue to New York State. Acres treated will be dependent upon staffing and suitable markets.

Action 4.1.2 Offer suitable location for maple tapping.
An evaluation of the potential sites for maple taping on the unit found only a few stands that could be considered appropriate. These stands are located along the Fairgrounds Road, on Madison 12, Beaver Creek State Forest. The forest stands in consideration could offer close to 96 acres in total for potential maple tapping. These stands contain a mix of hemlock and hardwoods with sugar maple being the dominant hardwood species along with steep terrain that would allow gravity feed to a plowed town road. Factors in determining suitability included; road access, general stand access, suitable species composition, direction of slope, tree quality and health, and lack of impacts to designated trails or public access sites. The suitable stands on Madison 12 are A-53, 67 and B-54.1.

Objective 4.2 Provide Property Tax Income to Local Governments and Schools.

Action 4.2.1 Maintain annual tax payments to local governments and schools.

The State provides annual payments of approximately $581,477 (2011 data) in combined town, and school taxes on the lands in this Unit. See **Appendix VII** for additional information.

Objective 4.3 Evaluate and consider surface disturbance associated with natural gas exploration, production and development on the Unit compatible with the goals and objections of the plan.

Action 4.3.1 Make no decision with respect to surface disturbances associated with oil and gas exploration, development and extraction on this unit in this management plan.

Should any portion, or all of the unit be nominated for oil and gas exploration, development and extraction, this will trigger a new public process before final decisions are made with respect to the proposal(s). The Department will conduct a tract assessment of the Unit, and hold a public meeting to receive comments in regard to the proposal(s). A 30 day public comment period would then follow the public meeting. The Department will consider all comments and the tract assessment prior to making a decision. If the Department decides to go forward with a lease proposal, the Division of Lands and Forests will collaborate with the Division of Mineral Resources to incorporate special conditions into the proposed lease. These conditions would include, but not be limited to criteria for site selection, mitigation of impacts and land reclamation upon completion of the proposal.

Action 4.3.2 Restrict surface mining.

Restrict surface mining of shale, sand, gravel or other aggregate and underground mining of "hard rock" minerals such as metal ores, gem minerals, and salt. The Department's current policy is to decline any commercial mining application(s) pertaining to any lands covered by this UMP as these activities are not compatible with the purposes for which State Forests were purchased.

Objective 4.4 Provide support to local communities through forest-based tourism.

Revenues to New York businesses from forest-related recreation and tourism activities totaled $1.9 billion in 2005 (North East State Foresters Association, 2007). Recreation activities enjoyed on the Unit, such as hunting, horse riding, and snowmobiling, contribute to the local economy through the participant's purchase of supplies, food and lodging.

Action 4.4.1 Develop cooperative partnerships with organizations individuals or communities to sustain or enhance forest based tourism activities that are consistent with this plan and State forest rules and regulations. The Volunteer programs will be used to formalize such partnerships. The Department will also support approved volunteer activities that are consistent with the goals and objectives of this plan.

Action 4.4.2 Promote public awareness through kiosks, brochures, and Department website development to be utilized by local communities. See actions 3.4.1 and 3.4.2.

Action 4.4.3 Acquire easements or purchase by fee simple title properties or off-road trail corridors to improve the connectivity of State Forests on the Unit.
Purchasing these properties or acquiring easements on them will permit the establishment of off-road trail corridors to join State forests on the Unit. This will provide a safer and more pleasant trail riding experience. Based upon analysis explained in Chapter 2 of the Strategic Plan for State Forest Management, the Unit is within a landscape connectivity corridor. Acquisition of these easements or properties will also enhance this landscape connectivity.

Objective 4.5 Protect rural character and provide ecosystem services and open space benefits to local communities.

The presence of State forests maintains the rural character of much of New York State. Undeveloped lands, such as State forests, provide many important ecosystem services to society such as wildlife habitat, buffering of downstream communities from floods, pollination of crops, insect pest control, clean water and clean air. They also provide open space benefits such as free public recreational opportunities and places for relaxation and escape from the disruptions and stresses associated with urban areas.

Action 4.5.1 The Department will pursue possible purchases of lands, from willing sellers only, in fee or through conservation easement parcels (in-holdings and parcels bordered on two or three sides by State lands) that will consolidate State ownership or protect at-risk species or ecological communities. Acquisition of such lands will improve public and administrative access and provide larger consolidated blocks of State land for improved protection of rare species and enhanced recreational opportunities. For more information on the Departments land acquisition priorities please refer to the SPSFM page 149 at http://www.dec.ny.gov/lands/64567.html.

VII. Management Action Schedules

A. Tables of Land Management Actions

Land Management Actions Code Definitions

The following table presents a 20-year schedule of planned management actions referenced by stand number and year of management. Maps showing the specific stand locations are available for viewing at the Sherburne Office.

Abbreviations or codes for the following tables are listed below:

1. DEFINITION OF CODES USED

Forest Type Codes	Definition
APP	Apple
BR	Brush, woody shrub species
BUCKET	Mixed planted conifers
CEDAR, C	Northern White Cedar
BF, F	Fir, Balsam
DL	Dunkeld Larch
HEM	Hemlock
JL	Japanese larch
JP	Jack Pine
LARCH, L	Larch Spp.
MIXED	Mixed conifers
NH	Northern hardwoods
NS	Norway spruce
OPEN	Areas dominated by herbaceous species not mowed for habitat
OLD FIELD, OF	Grassy areas mowed for habitat
PH	Pioneer hardwoods - aspen
PIT	Shale or gravel pit
POND	Natural open water bodies, including beaver ponds
POND-MAN	Manmade ponds that are maintained.
RO	Red oak
RP	Red pine
SH	Swamp hardwoods - red maple, white ash
SP	Scotch pine
WET-ALDER	Wet areas dominated by alder or other wetland shrub species

WET-OPEN	Wet areas dominated by non-woody vegetation
WP	White pine
WS	White spruce

Objective Type Code	**Definition**
APP	Apple
BR	Brush or woody shrub species
CEDAR, C	Northern white cedar
BF, F	Fir, Balsam
GR	Grass spp.
HEM	Hemlock
JL	Japanese larch
L	larch spp.
MIXED	Mixed native conifers
NH	Northern hardwoods
NS	Norway spruce
OPEN	Areas dominated by herbaceous species not mowed for habitat
OLD FIELD	Grassy or herbaceous areas mowed for habitat
PH	Pioneer hardwoods
PIT	Shale or gravel pit
P	Pine spp.
POND	Man-made or natural, including beaver ponds
RO	Red oak
RP	Red pine
NAT	Native hardwoods
SH	Swamp hardwoods - red maple, white ash
WET-ALDER	Wet areas dominated by alder or other wetland shrub species
WET-O	Wet areas dominated by non-woody vegetation
WP	White pine
WS	White spruce

Management Direction Code	Definition
APP	Apple trees.
BR	Brush: Shrub species other than apple.
E	Even-aged: 100-160 year rotation for natural stands; up to 140 years for plantations.
EL	Even-aged, Long Rotation: Stands managed for rotation of greater than 140 years. This primarily applies to white pine stands.
ES	Even-aged, Short Rotation: Approximately 60 year rotations to maintain pioneer hardwoods such as aspen.
EVR	Even-aged, Variable Retention: Principles of even-aged silviculture applied while retaining individuals or groups of trees in the harvested stand for the next rotation.
FNA	Future Natural Area: Existing conifer plantation which will be harvested and converted to native species. After conversion the stand is managed as a Natural Area.
NA	Natural Area: Forest area managed to grow to and sustain a climax condition.
OF	Old Field: Grassy or herbaceous areas mowed for habitat.
PIT	Shale Pit
U	Uneven-aged: Stands managed to develop multiple age classes with a 20 year cutting interval.
UL	Uneven-aged, Long Cutting Interval: Stands managed using the Uneven-aged system with a greater than 20 year cutting interval.
UVR	Uneven-aged, Variable Retention: The principles of uneven-aged silviculture are applied while retaining individuals or groups of trees in the harvested stand. Retained trees will be allowed to grow to their full biological maturity.
ZA	Protection – Inaccessible: Stands which are not environmentally or economically unfeasible to access.
ZF	Protection – Recreation: Stands excluded from harvesting to protect recreation assets or facilities.
ZH	Protection – Historic: Stands excluded from harvesting to protect historic or cultural resources.
ZR	Protection -- Riparian: Stands excluded from harvesting to protect stream banks and other zones near water features.
ZS	Protection – Steep: Stands excluded from harvesting to protect steep slopes.
ZV	Protection – Visual: Stands excluded from harvesting to protect visual resources.
ZW	Protection – Wetlands: Stands excluded from harvesting to protect wetlands.

Treatment Code	Definition
CTR	Crop tree release
FW	Firewood thinning
GC	Aspen clearcut to regenerate aspen for ruffed grouse and other species.
GS	Group selection: removal of trees in groups up to 2 acres in size to regenerate a mix of species with various **shade tolerance**s.
H	Apply herbicide to control interfering vegetation or invasive species
IN	Improvement thinning, removing mostly low grade timber with some sawtimber
M	Mow to maintain grass or prevent succession to forest cover
PU	Spruce harvest - pulp or sawtimber
PT	Plant trees
RA	Release apple trees
RE	Remove over-story trees to maintain grass or brush types.
RT	Pine or larch thinning
SAL	Salvage harvest of damaged or dying trees to recover economic value
STS	Single tree selection: individual trees across all size classes are removed to uniformly thin the stand. This system encourages the development of shade tolerant species.
SW	Shelterwood treatment: An even-aged regeneration method where the stand has previously been thinned to establish regeneration. The over-story trees are now scheduled to be removed to release the regeneration in one or two harvests.
SW-SR	Shelterwood treatment with the objective of releasing established spruce regeneration.
SWR	Shelterwood with reserves: A harvest of most over-story trees to release established regeneration from competition with the overstory. Reserve trees comprising at least 30 square feet of **basal area** are retained to ameliorate the microclimate, provide future snags, cavity trees, coarse woody debris and other wildlife or visual benefits.
SWR-SR	Shelterwood with reserves treatment with the objective of releasing established spruce regeneration.
SWR-T	A combination treatment using the shelterwood with reserves regeneration method where adequate established regeneration is present and a thinning elsewhere in the stand to establish regeneration and increase growth of residual trees.
SWR-SR-T	A combination treatment using the shelterwood with reserves regeneration method to release established spruce regeneration and a thinning elsewhere in the stand to establish regeneration and increase growth rate of residual trees.
TSI	Timber stand improvement: A non-commercial thinning to improve stand quality.
VIH	Variable intensity harvest: thinning with intentionally varied marking rules including removal in groups or patches, thinning and unthinned areas.

The following tables present a 20-year schedule of planned management actions. The first table is referenced by forest, then stand number and the second table is referenced by the year of scheduled management. The State Forest Stand Mosaic Maps for this Unit show the specific forest stand locations.

2. Table of Forest Stand Management Actions

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	A	1.00	25	NH	NH	E	TSI	
MADISON 1	A	2.00	4	WET-ALDER	WET-ALDER	ZW		
MADISON 1	A	3.00	2	RP	NH	ZF		
MADISON 1	A	4.00	1	PH	PH	ES	TSI/GC	2017
MADISON 1	A	5.00	1	BR-APP	NH-APP	E	RA/TSI/FW	2017
MADISON 1	A	6.00	3	NH	NH	E	IN	2030
MADISON 1	A	7.00	8	WS-NH	WS-NH	ZF		
MADISON 1	A	8.00	10	PH-NH	NH	ZW		
MADISON 1	A	9.00	3	RP	NH	ZF		
MADISON 1	A	10.00	2	PH	PH	ZW		
MADISON 1	A	11.00	4	NH-WP	NH-WP	ZF		
MADISON 1	A	12.00	6	NS-PH	PH	ZF		
MADISON 1	A	13.00	2	OPEN	OPEN	ZF		
MADISON 1	A	14.00	3	NH-WP	NH-WP	ZF		
MADISON 1	A	15.00	19	NH-HEM	NH-HEM	ZF		
MADISON 1	A	16.00	6	RP-WP	NH	ZF		
MADISON 1	A	17.00	19	NH	NH	ZW		
MADISON 1	A	18.00	14	NH	NH	ZF		
MADISON 1	A	19.00	6	NH-NS	NH	E	SWR	2028
MADISON 1	A	20.00	6	NH	NH	U	FW	2028
MADISON 1	A	21.00	14	RP	NH	E	SWR-T	2034
MADISON 1	A	22.00	2	WS	NH	E	PU/TSI	2016
MADISON 1	A	23.00	1	PH	PH	ZR		
MADISON 1	A	24.00	10	NS	NS-NH	E	PU	2034
MADISON 1	A	25.00	11	NS	NS-NH	E	PU	2034
MADISON 1	A	26.00	3	NH-RP	NH	E	SW	2028
MADISON 1	A	27.00	26	NS-NH	NH-NS	E	PU	2028
MADISON 1	A	28.00	17	NS	NH-NS	E	SWR-T	2028
MADISON 1	A	29.00	7	HEM-NH	HEM-NH	ZA		
MADISON 1	A	30.00	3	NH	NH	ZW		
MADISON 1	A	31.00	1	NH	NH	E	IN	2034
MADISON 1	A	32.00	12	HEM-NH	HEM-NH	UVR	STS/GS	2025
MADISON 1	A	33.00	5	NH	NH	E	CTR/SW	2020

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	A	34.00	3	NH	NH	E		
MADISON 1	A	35.00	2	WET-ALDER	WET-ALDER	ZR		
MADISON 1	A	36.00	26	HEM-NH	HEM-NH	UL	STS/GS	2017
MADISON 1	A	37.00	8	NS	NH-NS	E	PU	2034
MADISON 1	A	38.00	1	NH	NH	U	STS/GS	2025
MADISON 1	A	39.00	3	NH	NH	E	STS	2025
MADISON 1	A	40.00	4	NS-NH	NH	E	SW	2020
MADISON 1	A	41.00	40	NH	NH	UL	STS/GS	2017
MADISON 1	A	42.00	50	NS-RP	NH	E	SWR-T	2029
MADISON 1	A	43.00	13	NS	NS-NH	E	PU	2020
MADISON 1	A	44.00	15	RP-NS	NH	EVR	SWR-T	2020
MADISON 1	A	45.00	8	RP-NS	NH	E	SWR-T	2020
MADISON 1	A	46.00	13	NH	NH	U	STS/GS	2029
MADISON 1	A	47.00	18	NH	NH	U	VIH	2029
MADISON 1	A	48.00	13	NH	NH	E		
MADISON 1	A	49.00	2	NH	NH	E	TSI/FW	2019
MADISON 1	A	50.00	6	NH	NH	U	STS/GS	2033
MADISON 1	A	51.00	32	JL	NH	E	SWR	2034
MADISON 1	A	52.00	45	JL-RP	NH	E	SWR	2034
MADISON 1	A	53.00	1	PH	PH	ZW		
MADISON 1	A	54.00	3	NH	NH	E	FW	2019
MADISON 1	A	55.00	3	RP-NS	NH-NS	E	SWR-T	2027
MADISON 1	A	56.00	1	WET-OPEN	WET-Open	ZW		
MADISON 1	A	57.00	2	RP-NH	NH	E		
MADISON 1	A	58.00	5	WET-OPEN	WET-OPEN	ZW		
MADISON 1	A	59.10	5	NH	NH	U	STS/GS	2033
MADISON 1	A	59.20	2	OLD FIELD	OLD FIELD	ZH		
MADISON 1	A	60.00	2	WET-OPEN	WET-OPEN	ZW		
MADISON 1	A	61.00	9	NH-HEM	NH-HEM	U	STS	2029
MADISON 1	A	62.00	33	RP	NH	E	SWR-T	2027
MADISON 1	A	63.00	26	WS	NH-PH	ES	GC	2024
MADISON 1	A	64.00	6	NH	NH	E		
MADISON 1	A	65.00	1	NH-BR	NH-BR	ES	RA	2019
MADISON 1	A	66.00	6	NS	NS-NH	E	PU	2026
MADISON 1	B	1.00	35	NS	NH-NS	E	PU	2026
MADISON 1	B	2.00	3	NS	NS-NH	EVR	PU	2026
MADISON 1	B	3.00	1	RP-NH	BR	ZR		
MADISON 1	B	4.00	34	RP	NH	E	SWR	2034

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	B	5.00	1	OF-APP	OF-APP	APP		
MADISON 1	B	6.00	2	PIT	PIT	PIT		
MADISON 1	B	7.00	4	WS	NH	E	SW	2016
MADISON 1	B	8.00	8	NH	NH	E	FW	2025
MADISON 1	B	9.00	16	NH-HEM	NH-HEM	UL	STS/GS	2032
MADISON 1	B	10.00	4	NH-HEM	NH-HEM	ZR		
MADISON 1	B	11.00	1	WET-ALDER	WET-ALDER	ZW		
MADISON 1	B	12.00	14	NH	NH	E	TSI/FW	2032
MADISON 1	B	13.00	13	NH	NH	E		
MADISON 1	B	15.00	13	RP-NS	NH	E	SWR	2025
MADISON 1	B	16.00	7	NH-HEM	NH-HEM	U	STS/GS	2032
MADISON 1	B	17.00	3	RP	NH	E		
MADISON 1	B	18.00	8	RP	NH	E		
MADISON 1	B	19.10	6	NH	NH	E	IN	2027
MADISON 1	B	19.20	2	NH	NH	ZS		
MADISON 1	B	21.00	30	RP-NS	NH	E	RT/PU	2025
MADISON 1	B	22.00	28	NH-SP	NH	EVR	IN	2030
MADISON 1	B	23.00	12	WET-ALDER	WET-ALDER	ZR		
MADISON 1	B	24.00	18	RP-NS	NH	UVR	SWR	2026
MADISON 1	B	25.00	5	HEM-NH	HEM-NH	ZV		
MADISON 1	B	26.00	11	NH	NH	U	STS	2027
MADISON 1	B	27.00	20	HEM-NH	HEM-NH	ZW		
MADISON 1	B	28.00	8	NH	NH	E	IN	2026
MADISON 1	B	29.00	9	RP	NH	E	SWR	2026
MADISON 1	B	30.00	17	RP	NH	E	SWR	2034
MADISON 1	B	31.00	4	NS	NH-NS	E	SWR-T	2026
MADISON 1	B	32.00	2	WET-OPEN	WET-OPEN	ZR		
MADISON 1	B	33.00	6	RP	NH	E	SWR	2034
MADISON 1	B	34.00	5	RP	NH-WP	EVR	SWR-T	2034
MADISON 1	B	35.00	23	RP-WP	NH	EVR	SWR	2025
MADISON 1	B	37.10	30	NS-RP	NH	E	SWR	2025
MADISON 1	B	37.20	25	RP-NH	NH	E	IN	2033
MADISON 1	B	38.00	1	WET-OPEN	WET-OPEN	ZW		
MADISON 1	B	39.00	28	RP-WP	NH-WP	EVR	SWR-T/VIH	2024
MADISON 1	B	40.00	3	BR	BR	ZW		
MADISON 1	B	41.00	4	HEM-NH	HEM-NH	ZR		
MADISON 1	B	42.10	5	WET-OPEN	WET-OPEN	ZW		
MADISON 1	B	42.20	5	BR	BR	ZW		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	B	42.30	1	WET-OPEN	WET-OPEN	ZW		
MADISON 1	B	43.00	6	HEM-NH	HEM-NH	ZW		
MADISON 1	B	44.00	1	HEM	HEM	ZW		
MADISON 1	B	45.00	4	WP-RP	WP-RP	ZA		
MADISON 1	B	46.10	37	NH-HEM	NH-HEM	ZR		
MADISON 1	B	46.20	6	HEM-NH	HEM-NH	ZR		
MADISON 1	B	47.00	2	NH	NH	ZA		
MADISON 1	B	48.00	7	NH	NH	U	STS/GS	2021
MADISON 1	B	49.00	3	NH	NH	E	TSI/FW	2021
MADISON 1	B	50.00	22	RP-WP	NH-WP	E	SWR-T	2021
MADISON 1	B	51.00	1	WP	NH-WP	EVR	SWR	2021
MADISON 1	B	52.00	5	RP-PH-BR	PH-BR	E	SW	2021
MADISON 1	B	53.00	2	BR-APP	BR-APP	APP	RA	2021
MADISON 1	B	55.00	3	NH	NH	U	STS/GS	2021
MADISON 1	B	56.00	2	SP-NH	NH	ZR		
MADISON 1	B	57.00	16	JL	NH	E	SWR-T	2021
MADISON 1	B	58.00	21	NH	NH	E		
MADISON 1	B	59.00	3	WS-NH	NH	EVR	SWR	2021
MADISON 1	B	60.00	3	NS	NH	E	SWR-T	2021
MADISON 1	B	61.00	3	NH	NH	E	FW	2021
MADISON 1	B	62.00	17	HEM-NH	HEM-NH	ZR		
MADISON 1	B	63.00	9	NH-HEM	NH-HEM	ZR		
MADISON 1	B	64.00	10	NH	NH	E	IN	2030
MADISON 1	B	65.00	8	HEM-NH	HEM-NH	ZR		
MADISON 1	B	66.00	11	NH	NH	U	STS/GS	2030
MADISON 1	B	67.00	5	WP-NH	NH-WP	EVR		
MADISON 1	B	68.00	9	NH-WP	NH-WP	EVR	SWR-T	2030
MADISON 1	B	69.00	2	NS	NS-NH	E	PU	2016
MADISON 1	B	71.00	125	NH	NH	U	STS/GS	2015
MADISON 1	B	72.00	2	NH	NH	E	TSI/FW	2022
MADISON 1	B	73.00	12	NH	NH	E	IN	2022
MADISON 1	B	75.00	11	NH-HEM	NH-HEM	UVR	STS	2015
MADISON 1	B	76.00	9	NH-HEM	NH-HEM	ZR		
MADISON 1	B	77.00	10	NH-HEM	NH-HEM	U	STS/GS	2015
MADISON 1	B	78.00	71	RP-WP	NH	EVR	SWR-T	2019
MADISON 1	B	79.00	13	WP-NH	NH	EVR	SWR-T	2019
MADISON 1	B	80.00	5	NH	NH	E	FW	2021
MADISON 1	B	81.10	23	HEM-NH	NH-HEM	UL		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	B	81.20	9	NH-HEM	NH-HEM	ZR		
MADISON 1	B	81.30	12	NH-HEM	NH-HEM	ZS		
MADISON 1	B	82.00	41	JL	NH	E	SWR-T	2016
MADISON 1	B	83.00	40	NH	NH	E		
MADISON 1	B	84.00	26	WP-RP-NH	NH-WP	EVR	SWR-T	2032
MADISON 1	B	85.00	8	RP	NH	E	SWR	2020
MADISON 1	B	86.00	9	WP	NH-WP	EVR	SWR-T	2032
MADISON 1	B	87.00	20	NH	NH	E	IN	2022
MADISON 1	B	88.00	1	NH	NH	E		
MADISON 1	B	89.00	43	RP	NH	E	SWR-T	2020
MADISON 1	B	90.00	2	BR-APP	BR-APP	APP	RA	2033
MADISON 1	B	91.00	5	NH	NH	E		
MADISON 1	B	92.00	5	NS	NH-NS	E	PU	2020
MADISON 1	B	93.00	27	RP-WP	NH	EVR	SWR-T	2020
MADISON 1	B	95.00	21	NH	NH	E		
MADISON 1	B	96.00	1	NH	NH	ZR		
MADISON 1	B	97.00	2	NH	NH	E	FW	2016
MADISON 1	B	98.00	3	OF-APP	BR-APP	APP	M	*
MADISON 1	B	100.00	7	NS	NH-NS	E	PU	2016
MADISON 1	B	101.00	4	NH	NH	E		
MADISON 1	B	102.00	3	NH-WP	NH-WP	EVR	SWR-T	2032
MADISON 1	B	103.00	6	NH	NH	E	SW	2022
MADISON 1	B	104.00	1	WP	NH-WP	EVR	RT	2032
MADISON 1	C	1.00	23	NH-HEM	NH-HEM	U	STS/GS	2023
MADISON 1	C	2.00	2	NH-HEM	NH-HEM	ZW		
MADISON 1	C	3.00	3	NH	NH	U	STS/GS	2023
MADISON 1	C	4.00	71	NS	NH-NS	E	PU	2022
MADISON 1	C	5.00	8	BR	BR	BR	GC	2022
MADISON 1	C	6.00	11	NH	NH	E	SWR-T	
MADISON 1	C	7.00	49	RP	NH	E	SWR-T	2019
MADISON 1	C	8.00	4	NH	NH	ZR		
MADISON 1	C	9.00	27	NH	NH	E		
MADISON 1	C	10.00	1	NS	NS	E	PU	2017
MADISON 1	C	11.00	1	NH	NH	E		
MADISON 1	C	12.00	6	NS	NH-NS	U	PU	2022
MADISON 1	C	13.00	8	NH	NH	U	STS/GS	2021
MADISON 1	C	14.00	25	NH	NH	U		
MADISON 1	C	15.00	5	NH	NH	U	STS	2023

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	C	17.00	4	RP	NH	E		
MADISON 1	C	18.00	106	NH-HEM	NH-HEM	NA		
MADISON 1	C	19.00	18	NH-HEM	NH-HEM	NA		
MADISON 1	C	20.00	14	NH	NH	U	FW	2022
MADISON 1	C	21.00	13	JL	NH	U	RT	2022
MADISON 1	C	22.00	4	NH	NH	U	STS/GS	2022
MADISON 1	C	23.00	5	NH	NH	U		
MADISON 1	C	24.00	27	RP-NH	NH	UVR	SWR-T	2027
MADISON 1	C	25.00	20	RP	NH	E		
MADISON 1	C	26.00	1	OF-APP	OF-APP	APP	RA/M	*
MADISON 1	C	27.00	6	RP-NH	PH	ES	GC	2023
MADISON 1	C	28.00	6	NH	NH	E		
MADISON 1	C	29.00	19	NH-HEM	NH-HEM	NA		
MADISON 1	C	30.00	2	NH	NH	NA		
MADISON 1	C	31.00	14	NH-HEM	NH-HEM	NA		
MADISON 1	C	32.00	28	NH	NH	U	STS/GS	2019
MADISON 1	C	33.00	46	NH-HEM	NH-HEM	U	STS/GS	2019
MADISON 1	C	34.00	29	RP	NH	U	SWR-T	2019
MADISON 1	C	35.00	2	BR-APP	BR-APP	APP	RA	2019
MADISON 1	C	36.00	19	NH-HEM	NH-HEM	U	STS/GS	2023
MADISON 1	C	37.00	13	RP-NS	NH	E	SWR-T	2020
MADISON 1	C	38.00	11	RP-NS	NH	E	SWR-T	2020
MADISON 1	C	39.00	8	RP-NS	NH	E	SWR	2020
MADISON 1	C	40.00	6	NS	NH	E	SWR-T	2020
MADISON 1	C	41.00	2	NH	NH	ZS		
MADISON 1	C	42.00	8	RP-NH	NH	E	SWR	2020
MADISON 1	C	44.10	22	NH	NH	U	STS/GS	2019
MADISON 1	C	44.20	14	NH	NH	ZS		
MADISON 1	C	45.00	34	NH	NH	U	STS/GS	2019
MADISON 1	C	46.00	7	RP	NH	U	SWR	2019
MADISON 1	C	47.00	5	NH	NH	U		
MADISON 1	C	48.00	27	RP-NS	NH	U	RT	2019
MADISON 1	C	49.00	14	RP-NS	NH	U	SWR-T	2019
MADISON 1	C	50.00	2	PIT	PIT	PIT		
MADISON 1	C	52.00	7	NH	NH	U	STS/GS	2029
MADISON 1	C	53.00	1	PIT	PIT	PIT		
MADISON 1	C	57.00	9	NH	NH	E		
MADISON 1	C	58.00	2	EL	NH	E	RT	2022

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	C	59.00	7	WET-OPEN	WET-OPEN	ZW		
MADISON 1	C	60.00	2	JL	NH	E	RT	2022
MADISON 1	C	61.00	9	HEM-NH	HEM-NH	ZW		
MADISON 1	C	62.00	28	JL	NH-L	E	RT	2022
MADISON 1	C	63.00	1	WP-NH	NH	EVR	TSI	2022
MADISON 1	C	64.10	15	HEM-NH	HEM-NH	ZR		
MADISON 1	C	64.20	6	HEM-NH	HEM-NH	ZR		
MADISON 1	C	65.00	4	WET-ALDER	WET-ALDER	ZW		
MADISON 1	C	66.00	5	PH-BR	PH-BR	ZA		
MADISON 1	C	67.00	5	NH	NH	ZA		
MADISON 1	C	68.00	5	WET-ALDER	WET-ALDER	ZR		
MADISON 1	C	69.00	20	OLD FIELD	OLD FIELD	OF	RA/M	2022
MADISON 1	C	70.00	1	RP	NH-BR	E	RT/H/PT	2028
MADISON 1	C	71.00	11	HEM	HEM	ZR		
MADISON 1	C	72.00	36	NH-HEM	NH-HEM	U	STS/GS	2021
MADISON 1	C	73.00	10	NH	NH	E	IN	2021
MADISON 1	C	74.00	2	OLD FIELD	NH	E		
MADISON 1	C	75.00	36	DL	NH	E	RT	2022
MADISON 1	D	1.00	13	WP	NH-WP	EVR	RT	2033
MADISON 1	D	2.00	3	WET-ALDER	WET-ALDER	ZW		
MADISON 1	D	3.00	10	WP-NH	NH-WP	EVR	IN	2033
MADISON 1	D	4.00	3	NH-BR	NH	NA		
MADISON 1	D	5.00	5	NH-L	NH	NA		
MADISON 1	D	6.00	15	HEM-NH	HEM-NH	NA		
MADISON 1	D	7.00	5	NH-L	NH	NA		
MADISON 1	D	8.00	4	BR	BR	NA		
MADISON 1	D	9.00	6	NH	NH	NA		
MADISON 1	D	10.00	1	OF-BR	OF-BR	NA		
MADISON 1	D	11.10	3	NH	NH	U	TSI/FW	2031
MADISON 1	D	11.20	3	NH	NH	NA		
MADISON 1	D	12.00	61	NH-HEM	NH-HEM	UVR	STS	2031
MADISON 1	D	13.00	7	NH	NH	U	STS/GS	2031
MADISON 1	D	15.00	20	WP-NH	NH-WP	EVR	SWR-T	2033
MADISON 1	D	16.00	12	WET-ALDER	WET-ALDER	NA		
MADISON 1	D	17.00	7	WS	WS	NA		
MADISON 1	D	18.00	2	RP-WP	RP-WP	NA		
MADISON 1	D	19.00	8	HEM	HEM	NA		
MADISON 1	D	20.00	25	NH-HEM	NH-HEM	UL	FW/IN	2027

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	D	21.00	20	NH	NH	U	STS/GS	2031
MADISON 1	D	23.00	6	RP-NH	NH	U	SWR	2020
MADISON 1	D	24.00	1	RP	NH	E	RT	2017
MADISON 1	D	25.00	8	NS	NS-NH	E	PU	2024
MADISON 1	D	26.00	11	WET-OPEN	WET-OPEN	ZW		
MADISON 1	D	27.00	3	NH	NH	NA		
MADISON 1	D	28.00	3	NS	NS-NH	U	PU	2017
MADISON 1	D	29.00	3	NH-HEM	NH-HEM	NA		
MADISON 1	D	30.00	9	NH	NH	U	FW/IN	2031
MADISON 1	D	31.00	4	NH-HEM	NH-HEM	U	STS/GS	2031
MADISON 1	D	32.00	3	NH-HEM	NH-HEM	U	STS/GS	2031
MADISON 1	D	34.00	25	RP	NH	UVR	SWR-T	2020
MADISON 1	D	35.00	2	BR-APP	BR-APP	APP	GC/RA	2020
MADISON 1	D	36.00	5	NH	NH	U	SW	2020
MADISON 1	D	37.00	91	RP	NH	U	GS	2031
MADISON 1	D	38.00	5	NH	NH	U	SW	2020
MADISON 1	D	39.00	17	NH	NH	U		
MADISON 1	D	41.00	7	NH	NH	ZR		
MADISON 1	D	42.00	14	RP	NH	U		
MADISON 1	D	43.00	4	NH	NH	U	FW	2020
MADISON 1	D	44.00	8	NH-HEM	NH-HEM	NA		
MADISON 1	D	45.00	8	NH	NH	NA		
MADISON 1	D	46.00	7	NH-HEM	NH-HEM	NA		
MADISON 1	D	47.00	9	NH-HEM	NH-HEM	NA		
MADISON 1	D	48.00	11	HEM-NH	HEM-NH	NA		
MADISON 1	D	49.00	2	NH	NH	NA		
MADISON 1	D	50.00	2	RP	NH	FNA	SWR-T	2017
MADISON 1	D	51.00	4	NH	NH	FNA	SW	2017
MADISON 1	D	52.00	1	RP	NH	FNA	SWR	2017
MADISON 1	D	53.00	2	NH-HEM	NH-HEM	NA		
MADISON 1	D	54.00	12	RP	NH	FNA	SWR	2017
MADISON 1	D	55.00	9	NH	NH	NA		
MADISON 1	D	56.00	4	NH-HEM	NH-HEM	NA		
MADISON 1	D	57.00	4	POND-MAN	POND	NA		
MADISON 1	D	58.00	16	POND	POND	NA		
MADISON 1	D	59.00	13	RP	NH	FNA	SWR-T	2017
MADISON 1	E	1.00	5	NH	NH	ZF		
MADISON 1	E	2.00	51	WP	NH-WP	EVR	STS	2016

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	E	3.00	23	NH	NH	E	IN	2016
MADISON 1	E	4.00	6	NH-WP	NH-WP	EVR	STS/GS	2016
MADISON 1	E	5.00	1	RO	RO	E	IN	2025
MADISON 1	E	6.00	14	NH-HEM	NH-HEM	U	STS	2031
MADISON 1	E	7.00	3	NH-HEM	NH-HEM	ZR		
MADISON 1	E	8.00	1	POND-MAN	POND	ZW		
MADISON 1	E	9.00	10	NH-HEM	NH-HEM	UL		
MADISON 1	E	10.00	83	WP	NH-WP	UVR	SWR-T	2027
MADISON 1	E	11.00	1	NH	NH	U	STS/GS	2027
MADISON 1	E	12.00	48	NH	NH	U	STS	2029
MADISON 1	E	13.00	34	WP-NH	NH-WP	EVR	RT	2024
MADISON 1	E	14.00	3	HEM-NH	HEM-NH	ZR		
MADISON 1	E	15.00	3	HEM-NH	HEM-NH	ZR		
MADISON 1	E	16.00	8	HEM-NH	HEM-NH	UL		
MADISON 1	E	17.00	2	NH-NS	NH-NS	UVR	PU/FW	2031
MADISON 1	E	18.00	47	NS	NH-NS	UVR	STS/GS	2029
MADISON 1	E	19.00	12	NH	NH	U	STS	2031
MADISON 1	E	20.00	20	NS	NS-NH	UVR	GS	2029
MADISON 1	E	21.00	14	NH	NH	U	STS/GS	2029
MADISON 1	E	22.00	5	WP-NH	NH-WP	EVR	STS	2027
MADISON 1	E	23.00	5	NH	NH	E		
MADISON 1	E	24.00	14	RP	NH	E	SWR-T	2016
MADISON 1	E	25.10	37	NH	NH	U	STS/GS	2025
MADISON 1	E	25.20	2	NH-HEM	NH-HEM	ZW		
MADISON 1	E	26.00	36	NS	NS-NH	E	PU/VIH	2024
MADISON 1	E	28.00	2	PH-BR	PH	ES		
MADISON 1	E	29.00	133	NS	NS-NH	FNA	SWR-T	2032
MADISON 1	E	30.00	2	NS-NH-BR	NS-NH-BR	FNA		
MADISON 1	E	31.00	3	NS	NS	FNA	SW	2032
MADISON 1	E	32.00	79	NH	NH	NA		
MADISON 1	E	33.00	16	RP	NH	NA	SWR	2024
MADISON 1	E	34.00	14	HEM-NH	HEM-NH	NA		
MADISON 1	E	35.00	39	POND-MAN	POND	NA		
MADISON 1	E	36.00	15	NH-HEM	NH-HEM	NA		
MADISON 1	E	37.00	38	NH-HEM	NH-HEM	NA		
MADISON 1	E	38.00	8	NH	NH-HEM	NA		
MADISON 1	E	39.00	10	NH-HEM	NH-HEM	NA		
MADISON 1	E	40.00	4	NH-HEM	NH-HEM	NA		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	E	41.00	24	NH-HEM	NH-HEM	NA		
MADISON 1	E	42.00	3	NH-HEM	NH-HEM	NA		
MADISON 1	E	43.00	6	NH	NH	NA		
MADISON 1	E	44.00	3	NH	NH	NA		
MADISON 1	E	45.00	18	HEM-NH	HEM-NH	NA		
MADISON 1	E	46.00	13	NH	NH	NA		
MADISON 1	E	47.00	35	NS	NS-NH	FNA	SWR-T	2030
MADISON 1	E	48.00	1	PIT	PIT	PIT		
MADISON 1	E	49.00	2	NH-HEM	NH-HEM	NA		
MADISON 1	E	50.00	11	NH	NH	NA		
MADISON 1	E	51.00	6	RP-WP	NH	NA		
MADISON 1	E	52.00	5	NH	NH	NA		
MADISON 1	E	53.00	3	NH-HEM	NH	NA		
MADISON 1	E	55.00	1	NH-PH	NH-PH	NA		
MADISON 1	E	56.00	6	RP	NH	NA		
MADISON 1	E	57.00	4	NH-HEM	NH-HEM	NA		
MADISON 1	E	58.00	4	PH-BR	PH-BR	NA		
MADISON 1	E	59.00	7	WS	NH	NA	SWR	2024
MADISON 1	E	60.00	21	RP-WP	NH	NA		
MADISON 1	E	61.00	2	RP-WP	NH	NA		
MADISON 1	E	62.00	2	JP	NH	NA		
MADISON 1	E	63.00	30	NH	NH	NA		
MADISON 1	E	64.00	21	RP-NH	NH	NA		
MADISON 1	F	1.00	3	RP-NH	NH	E	SW	2033
MADISON 1	F	2.00	5	BR-APP	BR-APP	APP	RA	2019
MADISON 1	F	3.00	21	NH-HEM	NH-HEM	ZW		
MADISON 1	F	4.00	2	HEM	HEM	ZW		
MADISON 1	F	5.00	3	PH-BR	NH	ZR		
MADISON 1	F	6.00	7	HEM	HEM	ZR		
MADISON 1	F	7.00	17	NH-HEM	NH-HEM	UL		
MADISON 1	F	8.00	3	NH	NH	U		
MADISON 1	F	9.00	9	RP-NH	NH	UVR	SWR	2034
MADISON 1	F	10.00	3	NH-HEM	NH-HEM	U		
MADISON 1	F	11.00	31	NH	NH	U		
MADISON 1	F	12.00	1	RP	NH	U		
MADISON 1	F	13.00	2	NS	NS-NH	UVR	SWR	2021
MADISON 1	F	14.00	4	RP	NH	U		
MADISON 1	F	15.10	4	NH	NH	ZR		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	F	15.20	2	NH	NH	ZR		
MADISON 1	F	16.00	27	RP-NH	NH	U	SWR	2033
MADISON 1	F	17.00	13	RP-NH	NH	UVR		
MADISON 1	F	18.00	1	BR-APP	BR-APP	APP	RA	2025
MADISON 1	F	19.00	3	NS	NS-NH	U	PU	2021
MADISON 1	F	20.00	1	NH	NH	U	STS/GS	2025
MADISON 1	F	26.00	6	PH-NH	NH	ZW		
MADISON 1	F	27.00	9	RP-NH	NH	UVR		
MADISON 1	F	29.00	2	NH	NH	UVR		
MADISON 1	F	30.00	26	RP-NH	NH	UVR	SWR	2033
MADISON 1	F	33.00	1	SP-NH	NH	UVR		
MADISON 1	F	34.00	23	RP-NH	NH	UVR		
MADISON 1	F	35.00	8	NH	NH	ZW		
MADISON 1	F	36.00	9	RP	NH	U	SWR	2033
MADISON 1	F	37.00	5	NH	NH	ZW		
MADISON 1	F	38.00	2	PH	NH	ZW		
MADISON 1	F	39.00	7	HEM-NH	HEM-NH	ZR		
MADISON 1	F	40.00	17	NH	NH	U	STS/GS	2021
MADISON 1	F	41.00	10	HEM-NH	HEM-NH	ZW		
MADISON 1	F	42.00	2	NH	NH	ZW		
MADISON 1	F	43.00	6	NH-HEM	NH-HEM	ZW		
MADISON 1	F	45.00	2	NH	NH	EVR		
MADISON 1	F	46.00	25	NS	NS-NH	E	SWR-SR	2026
MADISON 1	F	47.00	3	NH	NH	E	FW	2026
MADISON 1	F	48.00	3	PH	PH	ES		
MADISON 1	F	49.00	12	NS	NH-NS	E	SWR-SR	2026
MADISON 1	F	51.00	14	NH	NH	UVR	STS/GS	2021
MADISON 1	F	52.00	14	RP	NH	U	RT	2017
MADISON 1	F	53.00	3	NH	NH	U	STS	2021
MADISON 1	F	54.00	9	RP	NH	U	SWR	2034
MADISON 1	F	55.00	6	NH	NH	U		
MADISON 1	F	57.00	12	RP-NH	NH	UVR	SWR	2033
MADISON 1	F	58.00	4	WET-ALDER	WET-ALDER	ZW		
MADISON 1	F	59.00	2	PH	PH	ES		
MADISON 1	F	61.00	20	HEM-NH	HEM-NH	ZR		
MADISON 1	F	62.00	1	RP-NH	NH	ZR		
MADISON 1	F	63.00	4	NH	NH	U	FW	2021
MADISON 1	F	67.00	17	NH	NH	U	FW	2021

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	F	68.00	31	NH-PH-BR	NH-PH-BR	ZR		
MADISON 1	F	70.00	29	RP-NH	NH	E	SWR	2017
MADISON 1	F	71.00	3	NH	NH	E	IN	2021
MADISON 1	F	72.00	17	NH	NH	E		
MADISON 1	F	74.00	4	RP-NH	NH	E	SW	2017
MADISON 1	F	75.00	7	NH	NH	U	TSI/FW	2030
MADISON 1	F	76.00	13	NS	NH-NS	E	SWR-SR	2026
MADISON 1	F	77.00	7	NH	NH	E		
MADISON 1	F	78.00	2	PH	PH	ES	GC	2023
MADISON 1	F	79.00	24	NS	NH	E	SWR-T	2026
MADISON 1	F	80.00	15	NH	NH	E	SW	2021
MADISON 1	F	81.00	8	NH	NH	E		
MADISON 1	F	82.00	3	NH	NH	E		
MADISON 1	F	83.00	4	RP	NH	E	SW	2023
MADISON 1	F	84.10	25	WET-ALDER	WET-ALDER	ZR		
MADISON 1	F	84.20	3	HEM-NH	HEM-NH	ZW		
MADISON 1	F	85.00	20	RP	NH	E	SWR-T	2023
MADISON 1	F	86.00	2	NH	NH	E	TSI	2033
MADISON 1	F	87.00	11	NS	NH-NS	E	PU/VIH	2017
MADISON 1	F	89.00	2	PH	PH	ZW		
MADISON 1	F	90.00	25	NS	NS-NH	E	PU	2017
MADISON 1	F	91.00	5	HEM-NH	HEM-NH	ZA		
MADISON 1	F	93.00	16	RP	RP	ZA		
MADISON 1	F	94.00	8	HEM-NH	HEM-NH	ZA		
MADISON 1	F	95.00	12	NH	NH	ZA		
MADISON 1	F	96.00	42	NS	NS-NH	E	PU	2017
MADISON 1	F	97.00	2	RP	NH	E	SW	2017
MADISON 1	F	100.00	8	NH	NH	ZA		
MADISON 1	F	101.00	4	NS	NH	E	PU	2026
MADISON 1	F	102.00	2	RP-NH	NH	EVR	SWR	2026
MADISON 1	F	103.00	12	NH	NH	ZA		
MADISON 1	F	104.00	13	RP-NH	NH	E	SWR	2026
MADISON 1	F	105.00	16	NS-L	NH	E	PU/RT	2026
MADISON 1	F	106.00	3	SH	SH	ZW		
MADISON 1	F	107.00	16	NH	NH	ZA		
MADISON 1	F	108.00	12	RP	NH	E	SWR-T	2026
MADISON 1	F	109.00	2	WET-ALDER	WET-ALDER	ZW		
MADISON 1	F	110.00	11	RP-WS	NH	E	SWR	2026

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	F	111.00	11	NH	NH	E		
MADISON 1	F	112.00	8	NH	NH	E		
MADISON 1	F	113.00	4	NS	NH	E	PU/SR/TSI	2026
MADISON 1	F	114.00	1	WET-ALDER	WET-ALDER	ZW		
MADISON 1	F	115.00	6	NS	NH	E	PU	2026
MADISON 1	F	116.00	2	NH	NH	ZR		
MADISON 1	F	117.00	20	HEM	HEM	ZR		
MADISON 1	F	118.00	29	NH-HEM	NH-HEM	UVR	STS/GS/VIH	2028
MADISON 1	F	119.00	4	NH-HEM	NH-HEM	ZS		
MADISON 1	F	120.00	15	NH	NH	U	STS/GS	2021
MADISON 1	G	1.00	73	NS	NS-NH	EVR	SWR-T	2023
MADISON 1	G	2.00	4	NS	NH-NS	E	SW-SR	2023
MADISON 1	G	3.00	17	NH	NH	U	STS/GS	2032
MADISON 1	G	4.00	29	NS	NH-NS	E	PU	2023
MADISON 1	G	5.00	17	HEM-NH	HEM-NH	ZR		
MADISON 1	G	6.00	17	NH	NH	E		
MADISON 1	G	7.00	48	NS-RP	NH-NS	EVR	SWR-T	2024
MADISON 1	G	9.00	1	NH-BR	NH-BR	E	FW	2020
MADISON 1	G	11.00	57	NH	NH	U	STS/GS	2032
MADISON 1	G	12.00	15	NH	NH	ZW		
MADISON 1	G	13.00	18	WP-NH	NH-WP	EVR	SWR-T	2026
MADISON 1	G	14.00	22	NH-RP	NH	E		
MADISON 1	G	15.00	35	PH	PH	ZR		
MADISON 1	G	16.00	17	NH	NH	ES	GC	2026
MADISON 1	G	17.00	1	OLD FIELD	PH	E		
MADISON 1	G	18.00	4	NH-PH	NH	E		
MADISON 1	G	19.00	1	NS	NH-NS	ZH		
MADISON 1	G	20.00	71	NS	NS-NH	E	SWR-T	2016
MADISON 1	G	21.00	2	NS-RP	NS-NH	E		
MADISON 1	G	22.00	13	RP	NH	E	RT	2026
MADISON 1	G	23.00	60	NS-RP	NS-NH	E	SWR-T	2030
MADISON 1	G	24.00	5	RP-NH	NH	E	SWR-T	2030
MADISON 1	G	25.00	44	NH	NH	U	STS/GS	2032
MADISON 1	G	26.00	14	NH	NH	ZR		
MADISON 1	G	27.00	4	NS	NS	ZR		
MADISON 1	G	28.00	5	NH	NH	E	FW	2017
MADISON 1	G	29.00	9	NS-RP	NH	EVR	SWR	2030
MADISON 1	G	30.00	6	NH	NH	U	STS/GS	2030

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	G	31.00	24	WS-NH	NH	E	IN	2030
MADISON 1	G	32.00	10	WET-OPEN	WET-OPEN	ZW		
MADISON 1	G	33.00	2	WS	NH	ZR		
MADISON 1	G	35.00	3	PIT	PIT	PIT		
MADISON 1	G	36.00	9	NH-WS	NH	E	VIH	2030
MADISON 1	G	37.00	5	NH	NH	ZR		
MADISON 1	G	38.00	15	NH	NH	E	IN	2020
MADISON 1	G	39.00	10	NH-HEM	NH-HEM	ZR		
MADISON 1	G	40.00	14	NH	NH	E		
MADISON 1	G	42.10	6	RP-NH	NH	EVR	SWR	2015
MADISON 1	G	42.20	3	NH-RP	NH-PH	ZR		
MADISON 1	G	42.30	3	RP	NH	EVR	SW	2015
MADISON 1	G	43.00	6	RP	NH	EVR	SWR	2015
MADISON 1	G	44.00	4	NH	NH	E	FW	2030
MADISON 1	G	45.00	3	NH	NH	E	IN	2030
MADISON 1	G	46.00	10	NH	NH	E		
MADISON 1	G	47.00	2	NH	NH	E	FW	2030
MADISON 1	G	48.00	2	NH	NH	E		
MADISON 1	G	49.00	9	NS	NS-NH	E	VIH	2023
MADISON 1	G	50.00	9	NH-RP	NH	E	SWR	2020
MADISON 1	G	51.00	6	NS	NS	E	PU/VIH	2023
MADISON 1	G	52.00	5	BR-NS	BR-NS	ZW		
MADISON 1	G	53.00	3	NS	NH-NS	E	SWR-T	2023
MADISON 1	G	54.00	10	NH	NH	E	SWR	2020
MADISON 1	G	55.00	13	NS	NH-NS	E	SWR-T	2023
MADISON 1	G	56.00	11	RP-NH	NH	E	SAL	2020
MADISON 1	G	58.00	15	NS	NS-NH	E	SWR-T	2023
MADISON 1	G	59.00	7	RP-NH	NH	E	SWR	2020
MADISON 1	G	60.00	10	NS	NH	E	SWR-T	2023
MADISON 1	G	61.00	5	RP-NH	NH	E	SAL	2020
MADISON 1	G	62.00	5	NH	NH	E	FW	2023
MADISON 1	G	63.00	10	NS	NS-NH	E	PU/VIH	2023
MADISON 1	G	64.00	2	PH	PH	ES	GC	2030
MADISON 1	G	65.00	9	RP	NH	E	SWR	2020
MADISON 1	G	66.00	13	PH-BR	PH-BR	E		
MADISON 1	G	68.00	1	NS	NS	ZR		
MADISON 1	G	69.00	3	NH	NH	E		
MADISON 1	G	70.00	3	PH	PH	ES	GC	2020

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	G	71.00	3	PH	NH	E		
MADISON 1	G	72.00	2	NS	NS	ZR		
MADISON 1	G	73.00	21	WET-ALDER	WET-ALDER	ZW		
MADISON 1	G	74.00	3	PH	PH	ES	GC	2034
MADISON 1	G	76.00	2	POND	POND	ZW		
MADISON 1	G	77.00	6	PH-RP	PH	ES	GC	2015
MADISON 1	G	78.00	10	RP	NH	E	SWR	2015
MADISON 1	G	79.00	2	NH-BR	NH-BR	E		
MADISON 1	G	80.00	12	RP	NH	E	SWR-T	2030
MADISON 1	G	81.00	1	NH	NH	E	IN	2030
MADISON 1	G	82.00	6	NS	NS	E	PU	2017
MADISON 1	G	83.00	1	RP	NH	ZR		
MADISON 1	G	85.00	3	NH	NH	E	FW	2030
MADISON 1	G	86.00	1	WET-ALDER	WET-ALDER	ZW		
MADISON 1	G	87.00	2	NH	NH	E	FW	2030
MADISON 1	G	88.00	1	RP-NH	NH	E	SW	2030
MADISON 1	G	89.00	5	NS-PH	NH	E	PU	2017
MADISON 1	G	90.00	14	RP	NH	E	SWR	2030
MADISON 1	G	91.00	2	NH	NH	E	FW	2030
MADISON 1	G	92.00	24	NH	NH	E	SW	2032
MADISON 1	G	93.00	8	NH	NH	E	IN	2017
MADISON 1	G	94.00	6	NS	NH	E	PU	2028
MADISON 1	G	95.00	5	OF-BR	OF-BR	BR	RA	2023
MADISON 1	G	96.00	2	RP-NH	NH	E	SW	2023
MADISON 1	G	97.00	4	RP	NH	E	SWR-T	2023
MADISON 1	G	99.00	6	NS	NH	E	PU	2028
MADISON 1	G	100.00	6	RP	NH	E	SWR	2023
MADISON 1	G	102.00	3	NH	NH	ZR		
MADISON 1	G	103.00	3	NS	NS-NH	E	PU	2028
MADISON 1	G	104.00	3	RP-NH	NH	E	SW	2023
MADISON 1	G	105.00	3	NS	NS-NH	E	PU	2028
MADISON 1	G	106.00	1	RP-NS	NH	E	SW	2023
MADISON 1	G	108.00	1	NH-BR	BR	ES	TSI/RA	2023
MADISON 1	G	109.00	72	NH	NH	E	SWR-T	2023
MADISON 1	G	110.00	1	WP-NH	WP-NH	EVR	SWR	2023
MADISON 1	G	112.00	4	NS	NS-NH	E	PU	2028
MADISON 1	G	113.00	2	NS	NS-NH	E	PU	2028
MADISON 1	G	115.00	22	RP-PH	PH	EVR		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	H	1.00	16	RP-NH	NH	E	SWR	2022
MADISON 1	H	2.00	9	NH	NH	ZR		
MADISON 1	H	3.00	2	NH	NH	E		
MADISON 1	H	4.00	3	BR-APP	BR-APP	APP	RA	2022
MADISON 1	H	5.00	2	RP-BR	NH	E	SW	2022
MADISON 1	H	7.10	10	NS	NS-NH	EVR	VIH	2022
MADISON 1	H	7.20	11	NS	NS-NH	EVR	VIH	2022
MADISON 1	H	8.00	9	RP-NS	NS-NH	E	SWR-SR	2018
MADISON 1	H	9.00	8	NS	NS	ZR		
MADISON 1	H	10.00	22	NS	NS-NH	E	PU	2018
MADISON 1	H	11.00	3	NS	NS-NH	E	PU	2018
MADISON 1	H	12.00	1	NS	NS-NH	EVR	PU	2022
MADISON 1	H	13.00	11	WET-ALDER	WET-ALDER	ZW		
MADISON 1	H	14.00	16	NS	NS	E	PU	2016
MADISON 1	H	15.00	11	NH	NH	ZS		
MADISON 1	H	16.00	9	NS-JL	NS-NH	ES	SWR	2016
MADISON 1	H	17.00	8	NS	NS-NH	E	PU	2016
MADISON 1	H	18.00	6	JL-NS	NH	E	RT/PU	2016
MADISON 1	H	19.00	1	NH	NH	ES		
MADISON 1	H	20.00	35	JL-PINE	NH	E	SWR-T	2018
MADISON 1	H	21.00	11	HEM-NH	HEM-NH	UL		
MADISON 1	H	22.00	5	NH	NH	E		
MADISON 1	H	23.00	9	NH	NH	U		
MADISON 1	H	24.00	7	NH-HEM	NH-HEM	U	STS/GS	2031
MADISON 1	H	25.00	21	RP-NH	NH	UVR	SWR-T	2019
MADISON 1	H	26.00	2	PH-BR	NH	E	TSI/FW	2031
MADISON 1	H	27.00	9	NH-HEM	NH-HEM	UL	STS/GS	2031
MADISON 1	H	28.00	13	NH	NH	ES	GC/FW	2016
MADISON 1	H	29.00	4	RP	NH	E	SW	2016
MADISON 1	H	30.00	1	NH	NH	U	STS/GS	2024
MADISON 1	H	31.00	46	RP	NH	UVR	SWR	2024
MADISON 1	H	32.00	13	WET-ALDER	WET-ALDER	ZW		
MADISON 1	H	33.00	33	NH-HEM	NH-HEM	U	STS/GS	2031
MADISON 1	H	34.00	3	NH	NH	E		
MADISON 1	H	35.00	3	BR	BR	BR		
MADISON 1	H	36.00	2	NH	NH	U	TSI/FW	2031
MADISON 1	H	37.00	17	NH-HEM	NH-HEM	U	STS/GS	2031
MADISON 1	H	38.00	24	NH	NH-HEM	ZS		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	H	39.00	12	NH	NH	ZS		
MADISON 1	H	40.00	4	RP-NH	NH	ZA		
MADISON 1	H	41.00	2	RP-NH	NH	ZA		
MADISON 1	H	42.00	15	NH	NH	UL	SW	2027
MADISON 1	H	43.00	9	NH-HEM	NH-HEM	UL	STS/GS	2027
MADISON 1	H	44.00	6	NH	NH	ZR		
MADISON 1	H	45.00	23	NS	NS-NH	E	SWR-SR-T	2028
MADISON 1	H	46.00	5	PH-BR	NH-BR	ZR		
MADISON 1	H	47.00	15	NH	NH	U	STS/GS	2033
MADISON 1	H	48.00	9	RP-NH	NH-HEM	E	SWR	2015
MADISON 1	H	49.00	33	RP	NH	E	SWR	2015
MADISON 1	H	50.00	23	NH	NH	U	STS/GS	2027
MADISON 1	H	51.00	6	NH	NH	E	IN	2027
MADISON 1	H	52.00	4	NS	NH	E	SWR-T	2027
MADISON 1	H	53.00	6	NH-HEM	NH-HEM	ZR		
MADISON 1	H	54.00	2	NH	NH	ZR		
MADISON 1	H	55.00	5	NS	NH	E	SWR-T	2027
MADISON 1	H	56.00	4	WET-ALDER	WET-ALDER	ZW		
MADISON 1	H	57.00	9	NS	NH-NS	E	SWR-T	2028
MADISON 1	H	58.00	4	NS-NH	PH	ES	SW	2028
MADISON 1	H	59.00	10	NS	NS-NH	E	SWR-T	2028
MADISON 1	H	60.00	7	NS-NH	NH	E	SWR	2028
MADISON 1	H	61.00	7	NH-HEM	NH-HEM	ZA		
MADISON 1	H	62.00	7	NH-HEM	NH-HEM	ZA		
MADISON 1	H	63.00	6	NS-RP	NH-NS	E	SWR-T	2031
MADISON 1	H	64.00	18	NH	NH	E		
MADISON 1	H	65.00	14	NH	NH	E	SW	2033
MADISON 1	H	66.00	12	NH	NH	EVR	TSI/FW	2031
MADISON 1	H	68.00	17	NH	NH	E	SW	2031
MADISON 1	H	69.00	4	WP-RP-NH	NH-WP	EVR	RT/FW	2022
MADISON 1	H	70.00	65	NS	NH-NS	E	SWR-T	2031
MADISON 1	H	71.00	1	WET-ALDER	WET-ALDER	ZW		
MADISON 1	H	72.00	5	WP	WP-NH	EL	SWR-T	2020
MADISON 1	H	73.00	21	NH	NH	U	STS/GS	2018
MADISON 1	H	74.00	12	HEM-NH	HEM-NH	ZR		
MADISON 1	H	75.00	2	WET-ALDER	WET-ALDER	ZW		
MADISON 1	H	76.00	29	NH	NH	U		
MADISON 1	H	77.00	61	RP	NH	E	SWR-T	2022

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	H	78.00	2	NS	NH	E	RT	2022
MADISON 1	H	79.00	1	SH	SH	ZW		
MADISON 1	H	80.00	17	NS	NS-NH	ZR		
MADISON 1	H	81.00	3	PH	PH	ES		
MADISON 1	H	82.00	7	RP	NH	E	PU	2021
MADISON 1	H	84.00	3	RP	NH	E	SW	2022
MADISON 1	H	85.00	4	NS	NS	E	PU	2021
MADISON 1	H	86.00	5	RP	RP	E	SWR-T	2022
MADISON 1	H	87.00	5	NS	NS	E	PU	2021
MADISON 1	H	88.00	26	NH	NH	U	STS/GS	2028
MADISON 1	H	89.00	4	NS	NH	E	PU	2021
MADISON 1	H	90.00	4	WET-ALDER	WET-ALDER	ZW		
MADISON 1	H	91.00	5	NS	NS	ZR		
MADISON 1	H	92.00	1	PH	PH	ZR		
MADISON 1	H	93.00	7	PH	NH	E		
MADISON 1	H	94.00	8	NS	NS	E	PU	2024
MADISON 1	H	95.00	8	RP	NH	E	SWR-T	2022
MADISON 1	H	96.00	6	NS	NH	E	PU	2024
MADISON 1	H	97.00	2	PH-BR	PH	E		
MADISON 1	H	98.00	5	RP	NH	E	SWR-T	2022
MADISON 1	H	99.00	3	NS	NS-NH	E	PU/TSI	2028
MADISON 1	H	100.00	3	RP	NH-HEM	ZR		
MADISON 1	H	101.00	5	HEM-NH	HEM-NH	UL	STS/GS	2019
MADISON 1	H	102.00	9	NH	NH	E	SWR-T	2019
MADISON 1	H	103.00	7	NH-RP	NH	EVR		
MADISON 1	H	104.00	5	NH	NH	E	IN	2019
MADISON 1	H	105.00	10	BR-APP	BR-APP	APP	RA/GC	2023
MADISON 1	H	106.00	3	NS	NH	E	PU	2024
MADISON 1	H	107.00	7	OLD FIELD	OLD FIELD	OF	M	*
MADISON 1	H	108.00	12	PH-BR	PH-BR	ZR		
MADISON 1	H	109.00	14	HEM-NH	HEM-NH	ZW		
MADISON 1	H	110.00	5	PH-BR	NH	E		
MADISON 1	H	111.00	2	NH	NH	E	TSI/FW/RA	2024
MADISON 1	H	112.00	15	NS	NH	E	PU	2024
MADISON 1	H	113.00	1	BR	BR	ZW		
MADISON 1	H	114.00	2	NS	NS-NH	E	PU	2024
MADISON 1	H	115.00	2	NS-PH	NS-PH	E	PU	2024
MADISON 1	H	116.00	25	NS	NS	E	PU	2024

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 1	H	117.00	4	NH	NH	E	FW	2033
MADISON 1	H	118.00	12	PH	NH	E	FW	2033
MADISON 1	H	119.00	15	OLD FIELD	OLD FIELD	OF	M	*
MADISON 1	H	120.00	2	BR-PH	NH	E		
MADISON 4	A	1.00	2	NH	NH	E	IN	2018
MADISON 4	A	2.00	2	NH	NH	E	FW	2018
MADISON 4	A	3.00	3	OLD FIELD	OLD FIELD	OF	M	*
MADISON 4	A	4.00	2	NH	NH	E	STS	2018
MADISON 4	A	5.00	6	RP-NH	NH	EVR		
MADISON 4	A	6.00	13	NH	NH	E		
MADISON 4	A	7.00	4	NH	NH	E	STS/GS	2033
MADISON 4	A	8.00	21	RP-NH	NH	EVR	SWR-T	2033
MADISON 4	A	9.10	9	NH	NH-HEM	ZR		
MADISON 4	A	9.20	4	SP-NH	NH-SP	ZR		
MADISON 4	A	10.00	18	RP-NH	NH	EVR	SWR-T	2033
MADISON 4	A	11.10	21	NH	NH	U	STS/GS	2018
MADISON 4	A	11.20	2	PH-NH	NH-HEM-BR	ZW		
MADISON 4	A	12.00	12	NH	NH	UVR	STS/GS	2018
MADISON 4	A	13.00	64	RP-NH	NH	EVR	SWR	2033
MADISON 4	A	14.10	3	POND	POND	ZW		
MADISON 4	A	14.20	4	WET-ALDER	WET-ALDER	ZW		
MADISON 4	A	15.10	11	SP-NH	NH	ZR		
MADISON 4	A	15.20	26	WET-ALDER	WET-ALDER	ZW		
MADISON 4	A	16.00	10	NH-HEM	NH-HEM	ZR		
MADISON 4	A	17.00	22	NH	NH-HEM	U	STS/GS	2018
MADISON 4	A	18.00	14	NH	NH	EVR	IN	2030
MADISON 4	A	19.00	15	RP-NH	NH	EVR	RC/SAL/VIH/H	2033
MADISON 4	A	20.00	12	RP-NH	NH-HEM	EVR	SWR	2033
MADISON 4	A	21.00	15	NH-HEM	NH-HEM	U	STS/GS/SAL	2018
MADISON 4	A	22.10	4	RP-NH	NH-SP	ZR		
MADISON 4	A	22.20	3	HEM	HEM	ZW		
MADISON 4	A	22.30	4	WET-OPEN	WET-OPEN	ZW		
MADISON 4	A	23.00	9	NH-HEM	NH-HEM	ZA		
MADISON 4	A	25.00	9	NH	NH	ZA		
MADISON 4	A	27.10	9	SP-NH	NH	EVR		
MADISON 4	A	27.20	15	NH	NH	EVR		
MADISON 4	A	28.00	57	NH	NH	EVR		
MADISON 4	A	29.10	1	WET-ALDER	WET-ALDER	ZW		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 4	A	29.20	3	NH	NH	ZW		
MADISON 4	A	30.00	5	NH	NH	E	SW/CTR	2025
MADISON 4	A	31.00	5	NH	NH	E		
MADISON 4	A	32.00	4	RP-NH	NH	EVR	SWR-T	2033
MADISON 4	A	33.00	24	NS	NS-NH	E	SWR-SR-T	2017
MADISON 4	A	34.00	7	NH	NH	E	IN	2025
MADISON 4	A	35.00	51	NH	NH	U	STS/GS	2025
MADISON 4	A	36.00	9	NH	NH	E		
MADISON 4	A	38.00	4	RP-SP	RP-NH	ZW		
MADISON 4	A	39.00	9	WET-OPEN	WET-OPEN	ZW		
MADISON 4	A	40.00	56	RP	NH	EVR	SWR	2027
MADISON 4	A	41.00	1	NH	NH	E	RA	2016
MADISON 4	A	42.00	11	NH	NH	U	STS/GS	2025
MADISON 4	A	43.00	3	PIT	PIT	PIT		
MADISON 4	A	44.00	7	NH	NH	U	STS/GS	2025
MADISON 4	A	45.00	5	NH	NH	E	FW	2030
MADISON 4	A	46.00	9	NH-HEM	NH-HEM	ZW		
MADISON 4	A	47.00	16	NS	NS-NH	E	PU	2017
MADISON 4	A	48.00	2	WET-ALDER	WET-ALDER	ZW		
MADISON 4	A	49.10	38	NS	NS-NH	E	SWR-SR-T	2027
MADISON 4	A	49.20	6	NS-NH	NS-NH	E		
MADISON 4	A	50.00	3	NH	NH	E	SW	2027
MADISON 4	A	51.00	15	NH	NH	E	SW/ST	2034
MADISON 4	A	52.10	8	NH	NH	E		
MADISON 4	A	52.20	3	RP	NH	E	SWR-T	2027
MADISON 4	A	53.00	5	RP-NH	NH	E	SW/RA	2017
MADISON 4	A	54.00	1	PH-APP	PH-APP	ES	GC/RA	2016
MADISON 4	A	55.00	2	PH-APP	PH-APP	ES	RA	2017
MADISON 4	A	56.00	11	WET-ALDER	WET-ALDER	ZW		
MADISON 4	A	57.00	9	RP	NH	E	SWR-T	2027
MADISON 4	A	58.00	1	NH	NH	E	FW/IN	2019
MADISON 4	A	59.00	20	RP	NH	EVR	SWR	2017
MADISON 4	A	60.00	2	RP	NH	E	SW	2017
MADISON 4	A	61.00	8	RP-NH	NH	E	SWR	2027
MADISON 4	A	62.00	7	WET-OPEN	WET-OPEN	ZW		
MADISON 4	A	63.00	15	NH	NH	E	IN	2015
MADISON 4	A	64.00	6	PH	PH	ES	GC	2019
MADISON 4	A	65.00	3	PH	PH	ZW		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 4	A	66.00	5	POND	POND	ZW		
MADISON 4	A	67.00	9	NH-HEM	NH-HEM	U	STS/GS	2015
MADISON 4	A	68.00	1	NS	NS	ZV		
MADISON 4	A	69.00	23	WP-NH	NH-WP	EVR	SWR-T/VIH	2021
MADISON 4	A	70.00	9	NH-HEM	NH-HEM	UL	STS/GS	2015
MADISON 4	A	71.00	5	NH	NH	U	STS	2021
MADISON 4	A	72.00	2	NH	NH	ZS		
MADISON 4	A	73.00	7	NH-HEM	NH-HEM	ZW		
MADISON 4	A	74.00	6	NH	NH	E	TSI/FW	2025
MADISON 4	A	75.00	5	PH	PH	ES	GC/H	2015
MADISON 4	A	76.00	5	NH-MIXED	NH-WP-RP	E		
MADISON 4	A	77.00	3	HEM-NH	HEM-NH	ZS		
MADISON 4	A	78.00	5	WET-ALDER	WET-ALDER	ZW		
MADISON 4	A	80.00	4	OLD FIELD	OLD FIELD	OF	M	*
MADISON 4	A	81.00	1	RP	NH	E	SW	2021
MADISON 4	A	82.00	5	NH	NH	E	FW	2026
MADISON 4	A	83.00	10	PH	PH	ES	GC	2021
MADISON 4	A	84.00	10	WET-ALDER	WET-ALDER	ZW		
MADISON 4	A	85.00	30	NH	NH	U	FW	2028
MADISON 4	A	87.10	11	HEM	HEM-NH	UL		
MADISON 4	A	87.20	4	HEM-NH	HEM-NH	ZR		
MADISON 4	A	88.00	14	WET-ALDER	WET-ALDER	ZW		
MADISON 4	A	89.00	3	HEM	HEM	ZA		
MADISON 4	A	90.00	8	PH	PH	ZA		
MADISON 4	A	91.00	16	NH	NH	E		
MADISON 4	A	92.00	5	RP-NH	NH	E		
MADISON 4	A	93.00	3	NS-NH	NH-NS	E		
MADISON 4	A	94.00	1	RP	NS-NH	E		
MADISON 4	A	95.00	1	WET-ALDER	WET-ALDER	ZW		
MADISON 6	A	1.00	23	JL-WS	NH	E	SWR-T	2024
MADISON 6	A	2.00	18	NH	NH	E	SW/CTR	2023
MADISON 6	A	3.00	45	NH-HEM	HEM-NH	ZW		
MADISON 6	A	4.00	10	NH-HEM	NH-HEM	ZS		
MADISON 6	A	5.00	12	NH-HEM	NH-HEM	E	IN	2023
MADISON 6	A	7.00	38	RP	NH	E	SWR-T	2015
MADISON 6	A	8.00	12	NH	NH	E		
MADISON 6	A	9.00	12	NH	NH	E	TSI/FW	2016
MADISON 6	A	10.00	4	NH	NH	E	STS/GS	2023

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 6	A	11.00	1	NH	NH	E	IN	2016
MADISON 6	A	12.00	6	NH-HEM	NH-HEM	ZW		
MADISON 6	A	13.00	2	NH-HEM	NH-HEM	ZW		
MADISON 6	A	14.00	4	NH-HEM	NH-HEM	ZW		
MADISON 6	A	15.00	6	NH-HEM	NH-HEM	ZR		
MADISON 6	A	16.00	6	NH	NH-HEM	EVR	IN	2023
MADISON 6	A	17.00	27	NH	NH	U	STS/GS/VIH	2024
MADISON 6	A	18.00	28	WP	WP-NH	EVR	RT	2016
MADISON 6	A	20.10	15	NH-HEM	NH-HEM	UL	STS/GS/VIH	2028
MADISON 6	A	20.20	12	NH-HEM	NH-HEM	ZR		
MADISON 6	A	21.00	20	RP-NH	NH	E	SWR/TSI	2015
MADISON 6	A	22.00	9	WP	NH-WP	EL	TSI/FW	2025
MADISON 6	A	23.00	22	NS	NH-NS	E	PU	2018
MADISON 6	A	24.00	16	NS	NS-NH	E	PU	2024
MADISON 6	A	25.00	15	WP	NH-WP	EVR	SWR-T	2016
MADISON 6	A	26.00	9	WP-NH	NH-WP	EVR	SWR-T	2016
MADISON 6	A	27.00	2	NH	NH	E	STS	2027
MADISON 6	A	28.00	7	NH	NH	E	IN	2024
MADISON 6	A	30.00	17	WET-ALDER	WET-ALDER	ZW		
MADISON 6	A	31.00	4	NS-NH	NH-NS	EVR		
MADISON 6	A	32.00	5	NH	NH	U	STS/GS	2023
MADISON 6	A	33.00	19	RP-NH	NH	E	SWR-T	2015
MADISON 6	A	34.00	9	NH	NH	U	FW/VIH	2023
MADISON 6	A	35.00	12	NH	NH	E	SW	2015
MADISON 6	A	36.00	19	NH	NH	E	SW	2015
MADISON 6	A	38.00	18	NS	NS-NH	E	SWR-SR-T	2024
MADISON 6	A	39.00	27	RP-NS	NS-NH	E	SWR-SR-T	2024
MADISON 6	A	40.00	7	NH	NH	E	VIH/SW	2023
MADISON 6	A	41.00	10	NH	NH	E	IN	2023
MADISON 6	A	42.10	15	NH	NH	E	FW	2021
MADISON 6	A	42.20	3	NH	NH	ES		
MADISON 6	A	43.00	7	NS	NS-NH	E	SWR-SR-T	2022
MADISON 6	A	44.00	6	NS	NS-NH	E	SWR-SR-T	2022
MADISON 6	A	45.00	8	NS	NS-NH	E	SWR-SR-T	2022
MADISON 6	A	46.00	28	NS-WP	NS-NH	E	SWR-SR-T	2024
MADISON 6	A	47.00	14	NH	NH	E		
MADISON 6	A	48.00	3	NH	NH	E	STS/TSI/FW	2021
MADISON 6	A	49.00	17	RP-WP	NH-WP	EL	SWR-T	2016

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 6	A	50.00	14	NS	NS-NH	E	SWR-SR-T	2022
MADISON 6	A	51.00	3	NS	NS-NH	E	SW-SR-T	2022
MADISON 6	A	52.00	19	NS	NS	ZW		
MADISON 6	A	53.00	29	NH	NH	U	STS/GS	2026
MADISON 6	A	54.10	35	NH-HEM	NH-HEM	U	VIH	2026
MADISON 6	A	54.20	27	NH-HEM	NH-HEM	ZR		
MADISON 6	A	55.00	23	RP-NS	NH-NS	E	SWR-T	2016
MADISON 6	A	56.00	12	RP-NS	NH-NS	E	SWR-T	2016
MADISON 6	A	57.00	7	NH	NH	U	STS/GS	2026
MADISON 6	A	58.00	9	NH	NH	E	TSI	2027
MADISON 6	A	59.00	9	NH-HEM	NH-HEM	U	STS/GS	2026
MADISON 6	A	60.00	16	RP-WP	NH-WP	EVR	SWR-T	2016
MADISON 11	A	1.00	24	NH-HEM	NH-HEM	UL		
MADISON 11	A	2.10	43	RP	NH	E	SWR	2018
MADISON 11	A	2.20	8	NH	NH	E		
MADISON 11	A	2.30	3	RP	RP-NAT	ZR		
MADISON 11	A	3.00	15	NH-NS	NS-NH	E	PU	2025
MADISON 11	A	4.00	23	NH-HEM	NH-HEM	U	STS/GS	2028
MADISON 11	A	5.00	24	NH	NH	E	STS	2028
MADISON 11	A	6.00	26	NS	NH	E	SWR-T	2015
MADISON 11	A	7.00	1	RP	NH	E	SW	2018
MADISON 11	A	8.00	2	NH-HEM	NH-HEM	ZR		
MADISON 11	A	9.00	7	HEM-NH	HEM-NH	ZR		
MADISON 11	A	10.00	19	NH-HEM	NH-HEM	U	STS/GS	2034
MADISON 11	A	11.00	22	NS-NH	NH	E	SWR	2025
MADISON 11	A	12.00	25	RP	NH	E	SWR-T	2019
MADISON 11	A	13.00	10	NH	NH	E	CTR	2025
MADISON 11	A	14.00	4	NH-HEM	NH-HEM	ZW		
MADISON 11	A	15.00	5	POND	POND	ZW		
MADISON 11	A	16.00	4	NH	NH	E	TSI	2025
MADISON 11	A	17.00	4	NH-HEM	NH-HEM	ZR		
MADISON 11	A	18.00	13	NH-HEM	NH-HEM	U	STS/GS	2034
MADISON 11	A	19.00	4	NH	NH-HEM	EVR	IN	2028
MADISON 11	A	20.00	7	NH	NH	E	IN	2030
MADISON 11	A	21.00	11	HEM-NH	NH-HEM	U	STS/GS	2020
MADISON 11	A	22.00	74	NH	NH	EVR	IN	2020
MADISON 11	A	23.00	5	NS-NH	NH	E	SW	2015
MADISON 11	A	24.00	5	NH-HEM	NH-HEM	EVR	STS	2020

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 11	A	25.00	5	NH	NH	E	IN	2027
MADISON 11	A	26.00	3	HEM-NH	HEM-NH	ZR		
MADISON 11	A	27.00	1	RP	NH	E	RT	2020
MADISON 11	A	28.10	22	NH-BF	NH-HEM	E	FW	2021
MADISON 11	A	28.20	5	NH-HEM	NH-HEM	ZR		
MADISON 11	A	29.00	15	NH	NH	E	SW/FW	2030
MADISON 11	A	30.00	18	NS	NS-NH	E	PU	2015
MADISON 11	A	31.00	0	PIT	PIT	PIT		
MADISON 11	A	32.00	5	NH	NH	U	STS/GS	2027
MADISON 11	A	33.00	7	NH	NH	U	STS/GS	2021
MADISON 11	A	34.00	3	PIT	PIT	PIT		
MADISON 11	A	35.00	4	NH	NH	U	STS/GS	2021
MADISON 11	A	36.00	1	OF-APP	OF-APP	APP	RA/M	2022
MADISON 11	A	37.00	5	WET-ALDER	WET-ALDER	ZW		
MADISON 11	A	38.00	1	PH	NH	ES	GC	2022
MADISON 11	A	39.00	16	NH	NH	E	IN	2016
MADISON 11	A	40.00	3	WET-ALDER	WET-ALDER	ZW		
MADISON 11	A	41.10	6	RP-NH	NH	E	SWR	2020
MADISON 11	A	41.20	6	NH	NH	E	TSI/FW	2016
MADISON 11	A	42.00	1	PH	PH	ES	TSI	2020
MADISON 11	A	43.00	2	RP	NH	EVR	SW	2020
MADISON 11	A	44.00	3	NS	NH	EVR	PU	2025
MADISON 11	A	45.00	9	NH	NH	ES	FW/GC	2022
MADISON 11	A	46.00	1	NS	NH	E	PU	2025
MADISON 11	A	47.00	2	WET-ALDER	WET-ALDER	ZW		
MADISON 11	A	48.00	4	HEM-NH	HEM-NH	U		
MADISON 11	A	49.00	2	NH	NH	E		
MADISON 11	A	50.00	2	NH	NH	E	FW	2019
MADISON 12	A	1.00	7	BR-APP	BR-APP	APP	TSI/FW	2021
MADISON 12	A	2.00	14	RP	NH	E	RT	2021
MADISON 12	A	3.00	290	WET-ALDER	WET-ALDER	ZW		
MADISON 12	A	4.00	6	WP-RP	OLD FIELD	E	RE	2021
MADISON 12	A	5.00	7	OLD FIELD	OLD FIELD	OF	M	*
MADISON 12	A	6.00	10	PH	PH	ES	GC/FW	2023
MADISON 12	A	7.00	7	WS	NH	E	PU	2029
MADISON 12	A	8.00	24	S-F-HEM-WP	S-F-HEM-WP	NA		
MADISON 12	A	9.00	7	NH-WP	NH-WP	ZF		
MADISON 12	A	10.00	4	NS	NS-NH	E	PU	2029

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 12	A	11.00	22	NH-HEM	NH-HEM	U	STS/GS	2026
MADISON 12	A	12.00	17	NH	NH	E	IN	2026
MADISON 12	A	13.00	12	NH	NH	U	STS/GS	2026
MADISON 12	A	14.00	8	PH-APP	PH	APP	GC/RA	2023
MADISON 12	A	15.00	6	NS	NH	E	PU	2029
MADISON 12	A	16.00	14	WS	NH-WS	E	PU	2029
MADISON 12	A	17.00	9	WS	NH-WS	E	PU	2029
MADISON 12	A	18.00	15	NS	NH	E	PU	2029
MADISON 12	A	19.00	4	NS	NH	E	PU	2029
MADISON 12	A	20.00	6	RP-NH	BR-PH	ES		
MADISON 12	A	21.00	8	NS	NH-NS	E	PU	2029
MADISON 12	A	22.00	13	NH-MIXED	NH-MIXED	ZW		
MADISON 12	A	23.00	5	OLD FIELD	OLD FIELD	OF	M	*
MADISON 12	A	24.00	11	NS	OLD FIELD	OF	M	*
MADISON 12	A	25.00	4	OLD FIELD	OLD FIELD	OF	M	*
MADISON 12	A	26.00	17	OF-BR	BR-APP	BR	RA/TSI	2026
MADISON 12	A	27.00	67	CEDAR	CEDAR	NA		
MADISON 12	A	28.00	7	NS	NS-NH	E	PU/TSI	2021
MADISON 12	A	29.10	26	NH-HEM	NH-HEM	ZR		
MADISON 12	A	29.20	21	NH-HEM	NH-HEM	UL	STS/GS	2023
MADISON 12	A	30.00	12	WS	NH	E	PU/TSI	2029
MADISON 12	A	31.00	7	NS	NH-NS	E	PU/TSI	2029
MADISON 12	A	32.00	101	HEM	HEM	NA		
MADISON 12	A	33.00	7	NS	NS-NH	E	PU/TSI	2021
MADISON 12	A	34.00	3	WP	WP-NH	EVR	TSI	2021
MADISON 12	A	35.00	6	NH	NH	E	FW/IN	2017
MADISON 12	A	36.10	19	BR-PH	BR-PH	NA		
MADISON 12	A	36.20	47	HEM-PH	HEM-NH	NA		
MADISON 12	A	36.30	31	WET-ALDER	WET-ALDER	NA		
MADISON 12	A	37.00	16	NH-HEM	NH-HEM	ZR		
MADISON 12	A	38.00	12	NH	NH	E	IN/FW	2027
MADISON 12	A	39.00	13	NH	NH	E	TSI/FW	2027
MADISON 12	A	40.00	4	BR-APP	BR-APP	APP	RE/RA	2027
MADISON 12	A	41.00	10	NS	NS-NH	FNA	PU/TSI	2029
MADISON 12	A	42.00	4	NH	NH	NA		
MADISON 12	A	43.00	10	NS	NS	E	PU/TSI	2029
MADISON 12	A	44.00	24	HEM-NH	HEM-NH	NA		
MADISON 12	A	45.00	17	NH-WP	NH-WP	ZF		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 12	A	46.00	12	NH	NH-HEM	U	STS/GS	2025
MADISON 12	A	47.10	32	NH-HEM	NH-HEM	NA		
MADISON 12	A	47.20	18	NH-HEM	NH-HEM	ZR		
MADISON 12	A	48.00	78	HEM-C-F-SH	HEM-C-F-SH	NA		
MADISON 12	A	49.00	6	NS-SP	NS-NH	E	RT/PU	2029
MADISON 12	A	50.00	9	JL	JL	E	RT	2016
MADISON 12	A	51.00	2	OLD FIELD	OLD FIELD	OF	M/RE	*
MADISON 12	A	52.00	9	WS	WS-NH	E	PU	2029
MADISON 12	A	53.00	42	HEM-NH	HEM-NH	ZS		
MADISON 12	A	54.00	14	NH	NH	E		
MADISON 12	A	55.00	35	NH-HEM	NH-HEM	NA		
MADISON 12	A	56.10	34	NH-HEM	NH-HEM	NA		
MADISON 12	A	56.20	10	BR	BR	NA		
MADISON 12	A	57.00	17	NH-HEM	NH-HEM	U	STS/GS	2028
MADISON 12	A	58.00	16	NH	NH	U	TSI/FW/RA	2028
MADISON 12	A	59.00	3	WS	NH	E	TSI	2029
MADISON 12	A	60.00	10	WET-ALDER	WET-ALDER	NA		
MADISON 12	A	61.00	4	OLD FIELD	OLD FIELD	OF		
MADISON 12	A	62.00	7	NH	NH	E	TSI/FW	2017
MADISON 12	A	63.00	20	NH-HEM	NH-HEM	U	STS/GS	2034
MADISON 12	A	64.00	35	RP	NH	E	RT	2017
MADISON 12	A	65.00	18	BR	BR	NA		
MADISON 12	A	66.00	10	JL	NH	E	RT	2016
MADISON 12	A	67.00	12	NH	NH	ZS		
MADISON 12	A	68.00	3	BR-APP	BR-APP	APP	RA/FW	2028
MADISON 12	A	69.00	13	NH	NH	EVR	IN	2028
MADISON 12	B	1.10	3	NS	NS	ZW		
MADISON 12	B	1.20	10	NH-HEM	NH-HEM	ZR		
MADISON 12	B	2.00	25	NH-HEM	NH-HEM	ZA		
MADISON 12	B	3.00	6	NH	NH	ZA		
MADISON 12	B	4.00	5	NS-NH	NS-NH	E	PU	2020
MADISON 12	B	5.00	8	JL	NH	E	SWR-T	2020
MADISON 12	B	6.00	3	POND-MAN	POND	ZW		
MADISON 12	B	7.00	12	JL-NS	NH-HEM	E	SWR-T	2020
MADISON 12	B	8.00	4	OLD FIELD	OLD FIELD	OF		
MADISON 12	B	9.00	3	JL-RP	NH	ZR		
MADISON 12	B	10.00	26	NS-JL	NH	E	RT/PU	2020
MADISON 12	B	11.00	12	NH	NH	E		

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 12	B	12.00	7	NS-RP	NS-NH	E		
MADISON 12	B	13.00	4	NS-RP	NH	E	PU/RT	2020
MADISON 12	B	14.00	17	NH	NH	U	STS/GS	2018
MADISON 12	B	15.00	16	NS-NH	NH-NS	E		2020
MADISON 12	B	16.00	17	NS	NH	E	PU	2020
MADISON 12	B	17.00	2	NH	NH	E	FW/IN	2022
MADISON 12	B	19.10	19	NH	NH	E		
MADISON 12	B	19.20	1	PIT	PIT	PIT		
MADISON 12	B	20.00	47	NH	NH	U	STS/GS	2018
MADISON 12	B	21.00	3	SH	SH	ZR		
MADISON 12	B	22.00	11	RP-NH	NH	E	SWR	2021
MADISON 12	B	23.00	13	JL	NH	E	SWR-T	2015
MADISON 12	B	24.10	2	NH	NH	E	SW	2029
MADISON 12	B	24.20	2	NH	NH	ZR		
MADISON 12	B	25.00	12	NH	NH	E	SW	2029
MADISON 12	B	26.00	20	JL	NH	E	SWR/RA	2015
MADISON 12	B	27.00	0	OLD FIELD	OLD FIELD	ZH	RA/FW	2029
MADISON 12	B	28.00	44	NS	NS-NH	E	SWR-T	2028
MADISON 12	B	29.00	14	NS	NS-NH	E	SWR-SR	2028
MADISON 12	B	30.00	8	NS-NH	NS-NH	ZW		
MADISON 12	B	31.00	5	HEM-C	HEM-C	ZW		
MADISON 12	B	32.00	24	NH-HEM	NH-HEM	U	STS/FW	2018
MADISON 12	B	33.00	5	NH-HEM	NH-HEM	ZS		
MADISON 12	B	34.00	33	NH	NH	E	IN	2018
MADISON 12	B	35.10	10	BR-APP	BR-APP	APP	FW/GC/RA	2019
MADISON 12	B	35.20	4	WET-ALDER	WET-ALDER	ZW		
MADISON 12	B	36.00	4	NH	NH	E	FW	2029
MADISON 12	B	37.00	9	NH	NH	E		
MADISON 12	B	38.00	6	NH	NH	E	IN	2029
MADISON 12	B	39.00	6	NH	NH	E	FW	2029
MADISON 12	B	40.00	14	PH	PH	ZW		
MADISON 12	B	41.00	10	PH	NH	E	TSI/RA	2017
MADISON 12	B	42.00	7	PH-BR	PH-BR	ZW		
MADISON 12	B	43.10	27	NH	NH	ZS		
MADISON 12	B	43.20	37	NH-HEM	NH-HEM	ZR		
MADISON 12	B	44.00	20	WET-ALDER	WET-ALDER	ZW		
MADISON 12	B	45.00	4	WET-OPEN	WET-OPEN	ZW		
MADISON 12	B	46.00	10	NH	NH	U	STS/GS	2022

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 12	B	47.00	32	NH	NH	U	STS/FW	2022
MADISON 12	B	48.00	7	NH-HEM	NH-HEM	ZW		
MADISON 12	B	49.00	39	NS-RP	NS-NH	E	SWR-T	2017
MADISON 12	B	50.00	28	NH-HEM	NH-HEM	ZR		
MADISON 12	B	51.00	3	OPEN	OPEN	ZF		
MADISON 12	B	52.00	5	JL	NH	E	SWR	2025
MADISON 12	B	53.00	24	NH-L	NH	E		
MADISON 12	B	54.10	42	NH-HEM	NH-HEM	UVR	STS/GS	2025
MADISON 12	B	54.20	5	NH	NH	E	FW	2025
MADISON 12	B	55.00	5	NH	NH	E	IN	2022
MADISON 12	B	56.00	9	RP	NH	E	SWR-T	2015
MADISON 12	B	57.00	13	NS-RP	NS-RP	ZW		
MADISON 12	B	58.00	6	NH	NH	E	STS/GS	
MADISON 12	B	59.00	21	NS	NS-NH	E	SWR-SR-T	2021
MADISON 12	B	60.10	24	RP-NS	NH	E	PU/TR	2021
MADISON 12	B	60.20	14	NH	NH	E		
MADISON 12	B	61.00	16	NH	NH	E	FW	2032
MADISON 12	B	62.00	18	NH-WP	NH-WP	EVR	FW/IN	2032
MADISON 12	B	63.00	71	RP-NS	NS-NH	E	SWR-T	2030
MADISON 12	B	64.00	11	NS	NS	E	TSI/PU/RA	2029
MADISON 12	B	65.10	13	NH-HEM	NH-HEM	E	IN/FW	2025
MADISON 12	B	65.20	7	CEDAR	CEDAR	ZW		
MADISON 12	B	66.00	12	RP	RP	E	TSI/RT	2017
MADISON 12	B	67.00	1	WET-ALDER	WET-ALDER	ZW		
MADISON 12	B	68.00	5	RP-NH	NH	E	SWR-T	2017
MADISON 12	B	69.00	0	WET-OPEN	WET-OPEN	ZW		
MADISON 12	B	70.00	1	NH	NH	ZS		
MADISON 12	B	71.00	15	RP-NH	NH	E	SWR-T	2015
MADISON 12	B	72.00	3	NH	NH	E		
MADISON 12	B	73.00	16	NH	NH	E	IN	2034
MADISON 12	B	74.00	1	OLD FIELD	OLD FIELD	ZH		
MADISON 12	B	75.00	30	NS	NS-NH	E	PU	2021
MADISON 12	B	76.00	11	NH	NH	ZR		
MADISON 12	B	77.00	8	RP-NH	NH	E	SWR-T	2021
MADISON 12	B	78.00	7	NH-HEM	NH-HEM	ZW		
MADISON 12	B	79.00	3	NS	NS	E	TSI/PU	2034
MADISON 12	B	80.00	2	NH	NH	E	FW	2034
MADISON 12	B	81.00	10	OLD FIELD	OLD FIELD	OF	M	*

Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Year
MADISON 12	B	82.00	20	WET-ALDER	WET-ALDER	ZW		
MADISON 12	B	83.00	9	POND	POND	ZW		
MADISON 12	B	84.00	5	RP	NH	E	RT	2018
MADISON 12	B	85.00	4	OLD FIELD	OLD FIELD	ZW		
MADISON 12	B	86.00	11	RP-NH	BR-APP	ES	RA	2018
MADISON 12	B	87.00	35	NS	NS-NH	E	PU	2018
MADISON 12	B	88.00	17	NH	NH	E	IN/FW	2018
MADISON 12	B	89.00	11	RP-NH	NH	EVR	RA/SW	2018
MADISON 12	B	90.00	7	NH	NH	E	IN	2018
MADISON 12	B	91.10	7	NH-HEM	NH-HEM	ZR		
MADISON 12	B	91.20	4	NH-HEM	NH-HEM	ZA		
MADISON 12	B	92.10	3	RP-NH	NH	E	SW	2018
MADISON 12	B	92.20	5	RP-NH	NH	E	SWR	2018
MADISON 12	B	93.11	18	RP	NH	E	SWR-T	2018
MADISON 12	B	93.12	9	NH	NH	ZS		
MADISON 12	B	93.20	3	NH	NH	E	STS/GS	2018
MADISON 12	B	93.30	4	NH	NH	ZS		
MADISON 12	B	94.00	16	NH-HEM	NH-HEM	U	STS/GS	2025
MADISON 12	B	95.00	4	NH-HEM	NH-HEM	U	VIH	2025
MADISON 12	B	96.00	20	NH-HEM	NH-HEM	U	STS/GS/VIH	2025
MADISON 12	B	97.00	23	RP	NH	E	SWR-T	2017
MADISON 12	B	98.00	2	RP-BR	BR	ZW		
MADISON 12	B	99.00	1	NS	NS-NH	E	SW-SR-T	2029
MADISON 12	B	100.00	6	NH	NH	U	FW/RA	2025
MADISON 12	B	101.00	16	NH-HEM	NH-HEM	U	STS/GS	2025

* See the Grassland Maintenance Mowing Schedule

3. STAND TREATMENT SCHEDULE

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2015	MADISON 1	B	71.00	125	NH	NH	U	STS/GS	104
2015	MADISON 1	B	75.00	11	NH-HEM	NH-HEM	UVR	STS	100
2015	MADISON 1	B	77.00	10	NH-HEM	NH-HEM	U	STS/GS	239
2015	MADISON 1	G	42.10	6	RP-NH	NH	EVR	SWR	116
2015	MADISON 1	G	42.30	3	RP	NH	EVR	SW	150
2015	MADISON 1	G	43.00	6	RP	NH	EVR	SWR	118
2015	MADISON 1	G	77.00	6	PH-RP	PH	ES	GC	0
2015	MADISON 1	G	78.00	10	RP	NH	E	SWR	189
2015	MADISON 1	H	48.00	9	RP-NH	NH-HEM	E	SWR	123
2015	MADISON 1	H	49.00	33	RP	NH	E	SWR	128
2015	MADISON 4	A	63.00	15	NH	NH	E	IN	147
2015	MADISON 4	A	67.00	9	NH-HEM	NH-HEM	U	STS/GS	169
2015	MADISON 4	A	70.00	9	NH-HEM	NH-HEM	UL	STS/GS	160
2015	MADISON 4	A	75.00	5	PH	PH	ES	GC/H	79
2015	MADISON 6	A	7.00	38	RP	NH	E	SWR-T	171
2015	MADISON 6	A	21.00	20	RP-NH	NH	E	SWR/TSI	3
2015	MADISON 6	A	33.00	19	RP-NH	NH	E	SWR-T	170
2015	MADISON 6	A	35.00	12	NH	NH	E	SW	91
2015	MADISON 6	A	36.00	19	NH	NH	E	SW	87
2015	MADISON 11	A	6.00	26	NS	NH	E	SWR-T	159
2015	MADISON 11	A	23.00	5	NS-NH	NH	E	SW	98
2015	MADISON 11	A	30.00	18	NS	NS-NH	E	PU	140
2015	MADISON 12	B	23.00	13	JL	NH	E	SWR-T	184
2015	MADISON 12	B	26.00	20	JL	NH	E	SWR/RA	189
2015	MADISON 12	B	56.00	9	RP	NH	E	SWR-T	133
2015	MADISON 12	B	71.00	15	RP-NH	NH	E	SWR-T	133

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2016	MADISON 1	A	22.00	2	WS	NH	E	PU/TSI	220
2016	MADISON 1	B	7.00	4	WS	NH	E	SW	133
2016	MADISON 1	B	69.00	2	NS	NS-NH	E	PU	130
2016	MADISON 1	B	82.00	41	JL	NH	E	SWR-T	175
2016	MADISON 1	B	97.00	2	NH	NH	E	FW	120
2016	MADISON 1	B	100.00	7	NS	NH-NS	E	PU	150
2016	MADISON 1	E	2.00	51	WP	NH-WP	EVR	STS	171
2016	MADISON 1	E	3.00	23	NH	NH	E	IN	113
2016	MADISON 1	E	4.00	6	NH-WP	NH-WP	EVR	STS/GS	144
2016	MADISON 1	E	24.00	14	RP	NH	E	SWR-T	203
2016	MADISON 1	G	20.00	71	NS	NS-NH	E	SWR-T	146
2016	MADISON 1	H	14.00	16	NS	NS	E	PU	256
2016	MADISON 1	H	16.00	9	NS-JL	NS-NH	ES	SWR	226
2016	MADISON 1	H	17.00	8	NS	NS-NH	E	PU	240
2016	MADISON 1	H	18.00	6	JL-NS	NH	E	RT/PU	274
2016	MADISON 1	H	28.00	13	NH	NH	ES	GC/FW	104
2016	MADISON 1	H	29.00	4	RP	NH	E	SW	200
2016	MADISON 4	A	41.00	1	NH	NH	E	RA	15
2016	MADISON 4	A	54.00	1	PH-APP	PH-APP	ES	GC/RA	60
2016	MADISON 6	A	9.00	12	NH	NH	E	TSI/FW	113
2016	MADISON 6	A	11.00	1	NH	NH	E	IN	85
2016	MADISON 6	A	18.00	28	WP	WP-NH	EVR	RT	123
2016	MADISON 6	A	25.00	15	WP	NH-WP	EVR	SWR-T	124
2016	MADISON 6	A	26.00	9	WP-NH	NH-WP	EVR	SWR-T	100
2016	MADISON 6	A	49.00	17	RP-WP	NH-WP	EL	SWR-T	125
2016	MADISON 6	A	55.00	23	RP-NS	NH-NS	E	SWR-T	136
2016	MADISON 6	A	56.00	12	RP-NS	NH-NS	E	SWR-T	106
2016	MADISON 6	A	60.00	16	RP-WP	NH-WP	EVR	SWR-T	156
2016	MADISON 11	A	39.00	16	NH	NH	E	IN	82
2016	MADISON 11	A	41.20	6	NH	NH	E	TSI/FW	124

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2016	MADISON 12	A	50.00	9	JL	JL	E	RT	101
2016	MADISON 12	A	66.00	10	JL	NH	E	RT	151
2017	MADISON 1	A	4.00	1	PH	PH	ES	TSI/GC	95
2017	MADISON 1	A	5.00	1	BR-APP	NH-APP	E	RA/TSI/FW	90
2017	MADISON 1	A	36.00	26	HEM-NH	HEM-NH	UL	STS/GS	169
2017	MADISON 1	A	41.00	40	NH	NH	UL	STS/GS	129
2017	MADISON 1	C	10.00	1	NS	NS	E	PU	285
2017	MADISON 1	D	24.00	1	RP	NH	E	RT	250
2017	MADISON 1	D	28.00	3	NS	NS-NH	U	PU	255
2017	MADISON 1	D	50.00	2	RP	NH	FNA	SWR-T	150
2017	MADISON 1	D	51.00	4	NH	NH	FNA	SW	90
2017	MADISON 1	D	52.00	1	RP	NH	FNA	SWR	153
2017	MADISON 1	D	54.00	12	RP	NH	FNA	SWR	96
2017	MADISON 1	D	59.00	13	RP	NH	FNA	SWR-T	163
2017	MADISON 1	F	52.00	14	RP	NH	U	RT	194
2017	MADISON 1	F	70.00	29	RP-NH	NH	E	SWR	100
2017	MADISON 1	F	74.00	4	RP-NH	NH	E	SW	123
2017	MADISON 1	F	87.00	11	NS	NH-NS	E	PU/VIH	170
2017	MADISON 1	F	90.00	25	NS	NS-NH	E	PU	171
2017	MADISON 1	F	96.00	42	NS	NS-NH	E	PU	201
2017	MADISON 1	F	97.00	2	RP	NH	E	SW	177
2017	MADISON 1	G	28.00	5	NH	NH	E	FW	128
2017	MADISON 1	G	82.00	6	NS	NS	E	PU	232
2017	MADISON 1	G	89.00	5	NS-PH	NH	E	PU	136
2017	MADISON 1	G	93.00	8	NH	NH	E	IN	153
2017	MADISON 4	A	33.00	24	NS	NS-NH	E	SWR-SR-T	229
2017	MADISON 4	A	47.00	16	NS	NS-NH	E	PU	140
2017	MADISON 4	A	53.00	5	RP-NH	NH	E	SW/RA	90
2017	MADISON 4	A	55.00	2	PH-APP	PH-APP	ES	RA	33

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2017	MADISON 4	A	59.00	20	RP	NH	EVR	SWR	90
2017	MADISON 4	A	60.00	2	RP	NH	E	SW	170
2017	MADISON 12	A	35.00	6	NH	NH	E	FW/IN	102
2017	MADISON 12	A	62.00	7	NH	NH	E	TSI/FW	64
2017	MADISON 12	A	64.00	35	RP	NH	E	RT	191
2017	MADISON 12	B	41.00	10	PH	NH	E	TSI/RA	51
2017	MADISON 12	B	49.00	39	NS-RP	NS-NH	E	SWR-T	154
2017	MADISON 12	B	66.00	12	RP	RP	E	TSI/RT	174
2017	MADISON 12	B	68.00	5	RP-NH	NH	E	SWR-T	90
2017	MADISON 12	B	97.00	23	RP	NH	E	SWR-T	123
2018	MADISON 1	H	8.00	9	RP-NS	NS-NH	E	SWR-SR	116
2018	MADISON 1	H	10.00	22	NS	NS-NH	E	PU	169
2018	MADISON 1	H	11.00	3	NS	NS-NH	E	PU	180
2018	MADISON 1	H	20.00	35	JL-PINE	NH	E	SWR-T	142
2018	MADISON 1	H	73.00	21	NH	NH	U	STS/GS	125
2018	MADISON 4	A	1.00	2	NH	NH	E	IN	110
2018	MADISON 4	A	2.00	2	NH	NH	E	FW	55
2018	MADISON 4	A	4.00	2	NH	NH	E	STS	80
2018	MADISON 4	A	11.10	21	NH	NH	U	STS/GS	124
2018	MADISON 4	A	12.00	12	NH	NH	UVR	STS/GS	94
2018	MADISON 4	A	17.00	22	NH	NH-HEM	U	STS/GS	110
2018	MADISON 4	A	21.00	15	NH-HEM	NH-HEM	U	STS/GS/SAL	120
2018	MADISON 6	A	23.00	22	NS	NH-NS	E	PU	140
2018	MADISON 11	A	2.10	43	RP	NH	E	SWR	135
2018	MADISON 11	A	7.00	1	RP	NH	E	SW	175
2018	MADISON 12	B	14.00	17	NH	NH	U	STS/GS	146
2018	MADISON 12	B	20.00	47	NH	NH	U	STS/GS	113
2018	MADISON 12	B	32.00	24	NH-HEM	NH-HEM	U	STS/FW	107
2018	MADISON 12	B	34.00	33	NH	NH	E	IN	103

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2018	MADISON 12	B	84.00	5	RP	NH	E	RT	174
2018	MADISON 12	B	86.00	11	RP-NH	BR-APP	ES	RA	96
2018	MADISON 12	B	87.00	35	NS	NS-NH	E	PU	145
2018	MADISON 12	B	88.00	17	NH	NH	E	IN/FW	116
2018	MADISON 12	B	89.00	11	RP-NH	NH	EVR	RA/SW	97
2018	MADISON 12	B	90.00	7	NH	NH	E	IN	166
2018	MADISON 12	B	92.10	3	RP-NH	NH	E	SW	130
2018	MADISON 12	B	92.20	5	RP-NH	NH	E	SWR	140
2018	MADISON 12	B	93.11	18	RP	NH	E	SWR-T	0
2018	MADISON 12	B	93.20	3	NH	NH	E	STS/GS	93
2019	MADISON 1	A	49.00	2	NH	NH	E	TSI/FW	93
2019	MADISON 1	A	54.00	3	NH	NH	E	FW	93
2019	MADISON 1	A	65.00	1	NH-BR	NH-BR	ES	RA	100
2019	MADISON 1	B	78.00	71	RP-WP	NH	EVR	SWR-T	193
2019	MADISON 1	B	79.00	13	WP-NH	NH	EVR	SWR-T	243
2019	MADISON 1	C	7.00	49	RP	NH	E	SWR-T	0
2019	MADISON 1	C	32.00	28	NH	NH	U	STS/GS	128
2019	MADISON 1	C	33.00	46	NH-HEM	NH-HEM	U	STS/GS	185
2019	MADISON 1	C	34.00	29	RP	NH	U	SWR-T	140
2019	MADISON 1	C	35.00	2	BR-APP	BR-APP	APP	RA	70
2019	MADISON 1	C	44.10	22	NH	NH	U	STS/GS	127
2019	MADISON 1	C	45.00	34	NH	NH	U	STS/GS	137
2019	MADISON 1	C	46.00	7	RP	NH	U	SWR	92
2019	MADISON 1	C	48.00	27	RP-NS	NH	U	RT	182
2019	MADISON 1	C	49.00	14	RP-NS	NH	U	SWR-T	128
2019	MADISON 1	F	2.00	5	BR-APP	BR-APP	APP	RA	90
2019	MADISON 1	H	25.00	21	RP-NH	NH	UVR	SWR-T	166
2019	MADISON 1	H	101.00	5	HEM-NH	HEM-NH	UL	STS/GS	189
2019	MADISON 1	H	102.00	9	NH	NH	E	SWR-T	133

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2019	MADISON 1	H	104.00	5	NH	NH	E	IN	124
2019	MADISON 4	A	58.00	1	NH	NH	E	FW/IN	130
2019	MADISON 4	A	64.00	6	PH	PH	ES	GC	50
2019	MADISON 11	A	12.00	25	RP	NH	E	SWR-T	146
2019	MADISON 11	A	50.00	2	NH	NH	E	FW	55
2019	MADISON 12	B	35.10	10	BR-APP	BR-APP	APP	FW/GC/RA	71
2020	MADISON 1	A	33.00	5	NH	NH	E	CTR/SW	123
2020	MADISON 1	A	40.00	4	NS-NH	NH	E	SW	123
2020	MADISON 1	A	43.00	13	NS	NS-NH	E	PU	181
2020	MADISON 1	A	44.00	15	RP-NS	NH	EVR	SWR-T	147
2020	MADISON 1	A	45.00	8	RP-NS	NH	E	SWR-T	184
2020	MADISON 1	B	85.00	8	RP	NH	E	SWR	158
2020	MADISON 1	B	89.00	43	RP	NH	E	SWR-T	116
2020	MADISON 1	B	92.00	5	NS	NH-NS	E	PU	175
2020	MADISON 1	B	93.00	27	RP-WP	NH	EVR	SWR-T	173
2020	MADISON 1	C	37.00	13	RP-NS	NH	E	SWR-T	189
2020	MADISON 1	C	38.00	11	RP-NS	NH	E	SWR-T	223
2020	MADISON 1	C	39.00	8	RP-NS	NH	E	SWR	136
2020	MADISON 1	C	40.00	6	NS	NH	E	SWR-T	172
2020	MADISON 1	C	42.00	8	RP-NH	NH	E	SWR	152
2020	MADISON 1	D	23.00	6	RP-NH	NH	U	SWR	146
2020	MADISON 1	D	34.00	25	RP	NH	UVR	SWR-T	124
2020	MADISON 1	D	35.00	2	BR-APP	BR-APP	APP	GC/RA	65
2020	MADISON 1	D	36.00	5	NH	NH	U	SW	122
2020	MADISON 1	D	38.00	5	NH	NH	U	SW	93
2020	MADISON 1	D	43.00	4	NH	NH	U	FW	100
2020	MADISON 1	G	9.00	1	NH-BR	NH-BR	E	FW	70
2020	MADISON 1	G	38.00	15	NH	NH	E	IN	111
2020	MADISON 1	G	50.00	9	NH-RP	NH	E	SWR	80

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2020	MADISON 1	G	54.00	10	NH	NH	E	SWR	28
2020	MADISON 1	G	56.00	11	RP-NH	NH	E	SAL	0
2020	MADISON 1	G	59.00	7	RP-NH	NH	E	SWR	58
2020	MADISON 1	G	61.00	5	RP-NH	NH	E	SAL	106
2020	MADISON 1	G	65.00	9	RP	NH	E	SWR	114
2020	MADISON 1	G	70.00	3	PH	PH	ES	GC	55
2020	MADISON 1	H	72.00	5	WP	WP-NH	EL	SWR-T	213
2020	MADISON 11	A	21.00	11	HEM-NH	NH-HEM	U	STS/GS	124
2020	MADISON 11	A	22.00	74	NH	NH	EVR	IN	114
2020	MADISON 11	A	24.00	5	NH-HEM	NH-HEM	EVR	STS	107
2020	MADISON 11	A	27.00	1	RP	NH	E	RT	250
2020	MADISON 11	A	41.10	6	RP-NH	NH	E	SWR	108
2020	MADISON 11	A	42.00	1	PH	PH	ES	TSI	90
2020	MADISON 11	A	43.00	2	RP	NH	EVR	SW	105
2020	MADISON 12	B	4.00	5	NS-NH	NS-NH	E	PU	150
2020	MADISON 12	B	5.00	8	JL	NH	E	SWR-T	204
2020	MADISON 12	B	7.00	12	JL-NS	NH-HEM	E	SWR-T	171
2020	MADISON 12	B	10.00	26	NS-JL	NH	E	RT/PU	210
2020	MADISON 12	B	13.00	4	NS-RP	NH	E	PU/RT	152
2020	MADISON 12	B	15.00	16	NS-NH	NH-NS	E	SWR-T	146
2020	MADISON 12	B	16.00	17	NS	NH	E	PU	196
2021	MADISON 1	B	48.00	7	NH	NH	U	STS/GS	134
2021	MADISON 1	B	49.00	3	NH	NH	E	TSI/FW	107
2021	MADISON 1	B	50.00	22	RP-WP	NH-WP	E	SWR-T	149
2021	MADISON 1	B	51.00	1	WP	NH-WP	EVR	SWR	135
2021	MADISON 1	B	52.00	5	RP-PH-BR	PH-BR	E	SW	103
2021	MADISON 1	B	53.00	2	BR-APP	BR-APP	APP	RA	90
2021	MADISON 1	B	55.00	3	NH	NH	U	STS/GS	107
2021	MADISON 1	B	57.00	16	JL	NH	E	SWR-T	119

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2021	MADISON 1	B	59.00	3	WS-NH	NH	EVR	SWR	73
2021	MADISON 1	B	60.00	3	NS	NH	E	SWR-T	130
2021	MADISON 1	B	61.00	3	NH	NH	E	FW	80
2021	MADISON 1	B	80.00	5	NH	NH	E	FW	157
2021	MADISON 1	C	13.00	8	NH	NH	U	STS/GS	161
2021	MADISON 1	C	72.00	36	NH-HEM	NH-HEM	U	STS/GS	90
2021	MADISON 1	C	73.00	10	NH	NH	E	IN	116
2021	MADISON 1	F	13.00	2	NS	NS-NH	UVR	SWR	160
2021	MADISON 1	F	19.00	3	NS	NS-NH	U	PU	210
2021	MADISON 1	F	40.00	17	NH	NH	U	STS/GS	99
2021	MADISON 1	F	51.00	14	NH	NH	UVR	STS/GS	105
2021	MADISON 1	F	53.00	3	NH	NH	U	STS	120
2021	MADISON 1	F	63.00	4	NH	NH	U	FW	133
2021	MADISON 1	F	67.00	17	NH	NH	U	FW	74
2021	MADISON 1	F	71.00	3	NH	NH	E	IN	100
2021	MADISON 1	F	80.00	15	NH	NH	E	SW	97
2021	MADISON 1	F	120.00	15	NH	NH	U	STS/GS	93
2021	MADISON 1	H	82.00	7	RP	NH	E	PU	187
2021	MADISON 1	H	85.00	4	NS	NS	E	PU	197
2021	MADISON 1	H	87.00	5	NS	NS	E	PU	212
2021	MADISON 1	H	89.00	4	NS	NH	E	PU	207
2021	MADISON 4	A	69.00	23	WP-NH	NH-WP	EVR	SWR-T/VIH	146
2021	MADISON 4	A	71.00	5	NH	NH	U	STS	132
2021	MADISON 4	A	81.00	1	RP	NH	E	SW	245
2021	MADISON 4	A	83.00	10	PH	PH	ES	GC	91
2021	MADISON 6	A	42.10	15	NH	NH	E	FW	110
2021	MADISON 6	A	48.00	3	NH	NH	E	STS/TSI/FW	120
2021	MADISON 11	A	28.10	22	NH-BF	NH-HEM	E	FW	67
2021	MADISON 11	A	33.00	7	NH	NH	U	STS/GS	106
2021	MADISON 11	A	35.00	4	NH	NH	U	STS/GS	100

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2021	MADISON 12	A	1.00	7	BR-APP	BR-APP	APP	TSI/FW	59
2021	MADISON 12	A	2.00	14	RP	NH	E	RT	159
2021	MADISON 12	A	4.00	6	WP-RP	OLD FIELD	E	RE	176
2021	MADISON 12	A	28.00	7	NS	NS-NH	E	PU/TSI	152
2021	MADISON 12	A	33.00	7	NS	NS-NH	E	PU/TSI	142
2021	MADISON 12	A	34.00	3	WP	WP-NH	EVR	TSI	133
2021	MADISON 12	B	22.00	11	RP-NH	NH	E	SWR	157
2021	MADISON 12	B	59.00	21	NS	NS-NH	E	SWR-SR-T	175
2021	MADISON 12	B	60.10	24	RP-NS	NH	E	PU/TR	107
2021	MADISON 12	B	75.00	30	NS	NS-NH	E	PU	182
2021	MADISON 12	B	77.00	8	RP-NH	NH	E	SWR-T	130
2022	MADISON 1	B	72.00	2	NH	NH	E	TSI/FW	83
2022	MADISON 1	B	73.00	12	NH	NH	E	IN	101
2022	MADISON 1	B	87.00	20	NH	NH	E	IN	140
2022	MADISON 1	B	103.00	6	NH	NH	E	SW	123
2022	MADISON 1	C	4.00	71	NS	NH-NS	E	PU	171
2022	MADISON 1	C	5.00	8	BR	BR	BR	GC	35
2022	MADISON 1	C	12.00	6	NS	NH-NS	U	PU	168
2022	MADISON 1	C	20.00	14	NH	NH	U	FW	109
2022	MADISON 1	C	21.00	13	JL	NH	U	RT	150
2022	MADISON 1	C	22.00	4	NH	NH	U	STS/GS	103
2022	MADISON 1	C	58.00	2	EL	NH	E	RT	140
2022	MADISON 1	C	60.00	2	JL	NH	E	RT	180
2022	MADISON 1	C	62.00	28	JL	NH-L	E	RT	131
2022	MADISON 1	C	63.00	1	WP-NH	NH	EVR	TSI	75
2022	MADISON 1	C	69.00	20	OLD FIELD	OLD FIELD	OF	RA/M	10
2022	MADISON 1	C	75.00	36	DL	NH	E	RT	154
2022	MADISON 1	H	1.00	16	RP-NH	NH	E	SWR	159
2022	MADISON 1	H	4.00	3	BR-APP	BR-APP	APP	RA	50

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2022	MADISON 1	H	5.00	2	RP-BR	NH	E	SW	145
2022	MADISON 1	H	7.10	10	NS	NS-NH	EVR	VIH	210
2022	MADISON 1	H	7.20	11	NS	NS-NH	EVR	VIH	0
2022	MADISON 1	H	12.00	1	NS	NS-NH	EVR	PU	280
2022	MADISON 1	H	69.00	4	WP-RP-NH	NH-WP	EVR	RT/FW	143
2022	MADISON 1	H	77.00	61	RP	NH	E	SWR-T	149
2022	MADISON 1	H	78.00	2	NS	NH	E	RT	190
2022	MADISON 1	H	84.00	3	RP	NH	E	SW	200
2022	MADISON 1	H	86.00	5	RP	RP	E	SWR-T	187
2022	MADISON 1	H	95.00	8	RP	NH	E	SWR-T	208
2022	MADISON 1	H	98.00	5	RP	NH	E	SWR-T	164
2022	MADISON 6	A	43.00	7	NS	NS-NH	E	SWR-SR-T	184
2022	MADISON 6	A	44.00	6	NS	NS-NH	E	SWR-SR-T	158
2022	MADISON 6	A	45.00	8	NS	NS-NH	E	SWR-SR-T	172
2022	MADISON 6	A	50.00	14	NS	NS-NH	E	SWR-SR-T	117
2022	MADISON 6	A	51.00	3	NS	NS-NH	E	SW-SR-T	120
2022	MADISON 11	A	36.00	1	OF-APP	OF-APP	APP	RA/M	60
2022	MADISON 11	A	38.00	1	PH	NH	ES	GC	40
2022	MADISON 11	A	45.00	9	NH	NH	ES	FW/GC	73
2022	MADISON 12	B	17.00	2	NH	NH	E	FW/IN	107
2022	MADISON 12	B	46.00	10	NH	NH	U	STS/GS	159
2022	MADISON 12	B	47.00	32	NH	NH	U	STS/FW	125
2022	MADISON 12	B	55.00	5	NH	NH	E	IN	137
2023	MADISON 1	C	1.00	23	NH-HEM	NH-HEM	U	STS/GS	211
2023	MADISON 1	C	3.00	3	NH	NH	U	STS/GS	95
2023	MADISON 1	C	15.00	5	NH	NH	U	STS	82
2023	MADISON 1	C	27.00	6	RP-NH	PH	ES	GC	100
2023	MADISON 1	C	36.00	19	NH-HEM	NH-HEM	U	STS/GS	138
2023	MADISON 1	F	78.00	2	PH	PH	ES	GC	90

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2023	MADISON 1	F	83.00	4	RP	NH	E	SW	160
2023	MADISON 1	F	85.00	20	RP	NH	E	SWR-T	193
2023	MADISON 1	G	1.00	73	NS	NS-NH	EVR	SWR-T	155
2023	MADISON 1	G	2.00	4	NS	NH-NS	E	SW-SR	145
2023	MADISON 1	G	4.00	29	NS	NH-NS	E	PU	188
2023	MADISON 1	G	49.00	9	NS	NS-NH	E	VIH	178
2023	MADISON 1	G	51.00	6	NS	NS	E	PU/VIH	148
2023	MADISON 1	G	53.00	3	NS	NH-NS	E	SWR-T	210
2023	MADISON 1	G	55.00	13	NS	NH-NS	E	SWR-T	140
2023	MADISON 1	G	58.00	15	NS	NS-NH	E	SWR-T	160
2023	MADISON 1	G	60.00	10	NS	NH	E	SWR-T	117
2023	MADISON 1	G	62.00	5	NH	NH	E	FW	113
2023	MADISON 1	G	63.00	10	NS	NS-NH	E	PU/VIH	153
2023	MADISON 1	G	95.00	5	OF-BR	OF-BR	BR	RA	20
2023	MADISON 1	G	96.00	2	RP-NH	NH	E	SW	117
2023	MADISON 1	G	97.00	4	RP	NH	E	SWR-T	130
2023	MADISON 1	G	100.00	6	RP	NH	E	SWR	98
2023	MADISON 1	G	104.00	3	RP-NH	NH	E	SW	117
2023	MADISON 1	G	106.00	1	RP-NS	NH	E	SW	25
2023	MADISON 1	G	108.00	1	NH-BR	BR	ES	TSI/RA	100
2023	MADISON 1	G	109.00	72	NH	NH	E	SWR-T	133
2023	MADISON 1	G	110.00	1	WP-NH	WP-NH	EVR	SWR	240
2023	MADISON 1	H	105.00	10	BR-APP	BR-APP	APP	RA/GC	63
2023	MADISON 6	A	2.00	18	NH	NH	E	SW/CTR	97
2023	MADISON 6	A	5.00	12	NH-HEM	NH-HEM	E	IN	91
2023	MADISON 6	A	10.00	4	NH	NH	E	STS/GS	100
2023	MADISON 6	A	16.00	6	NH	NH-HEM	EVR	IN	104
2023	MADISON 6	A	32.00	5	NH	NH	U	STS/GS	116
2023	MADISON 6	A	34.00	9	NH	NH	U	FW/VIH	159
2023	MADISON 6	A	40.00	7	NH	NH	E	VIH/SW	99

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2023	MADISON 6	A	41.00	10	NH	NH	E	IN	99
2023	MADISON 12	A	6.00	10	PH	PH	ES	GC/FW	70
2023	MADISON 12	A	14.00	8	PH-APP	PH	APP	GC/RA	70
2023	MADISON 12	A	29.20	21	NH-HEM	NH-HEM	UL	STS/GS	138
2024	MADISON 1	A	63.00	26	WS	NH-PH	ES	GC	83
2024	MADISON 1	B	39.00	28	RP-WP	NH-WP	EVR	SWR-T/VIH	153
2024	MADISON 1	D	25.00	8	NS	NS-NH	E	PU	186
2024	MADISON 1	E	13.00	34	WP-NH	NH-WP	EVR	RT	141
2024	MADISON 1	E	26.00	36	NS	NS-NH	E	PU/VIH	182
2024	MADISON 1	E	33.00	16	RP	NH	NA	SWR	85
2024	MADISON 1	E	59.00	7	WS	NH	NA	SWR	72
2024	MADISON 1	G	7.00	48	NS-RP	NH-NS	EVR	SWR-T	159
2024	MADISON 1	H	30.00	1	NH	NH	U	STS/GS	110
2024	MADISON 1	H	31.00	46	RP	NH	UVR	SWR	103
2024	MADISON 1	H	94.00	8	NS	NS	E	PU	210
2024	MADISON 1	H	96.00	6	NS	NH	E	PU	183
2024	MADISON 1	H	106.00	3	NS	NH	E	PU	133
2024	MADISON 1	H	111.00	2	NH	NH	E	TSI/FW/RA	135
2024	MADISON 1	H	112.00	15	NS	NH	E	PU	125
2024	MADISON 1	H	114.00	2	NS	NS-NH	E	PU	175
2024	MADISON 1	H	115.00	2	NS-PH	NS-PH	E	PU	165
2024	MADISON 1	H	116.00	25	NS	NS	E	PU	174
2024	MADISON 6	A	1.00	23	JL-WS	NH	E	SWR-T	91
2024	MADISON 6	A	17.00	27	NH	NH	U	STS/GS/VIH	94
2024	MADISON 6	A	24.00	16	NS	NS-NH	E	PU	164
2024	MADISON 6	A	28.00	7	NH	NH	E	IN	82
2024	MADISON 6	A	38.00	18	NS	NS-NH	E	SWR-SR-T	149
2024	MADISON 6	A	39.00	27	RP-NS	NS-NH	E	SWR-SR-T	150
2024	MADISON 6	A	46.00	28	NS-WP	NS-NH	E	SWR-SR-T	170

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2025	MADISON 1	A	32.00	12	HEM-NH	HEM-NH	UVR	STS/GS	129
2025	MADISON 1	A	38.00	1	NH	NH	U	STS/GS	105
2025	MADISON 1	A	39.00	3	NH	NH	E	STS	100
2025	MADISON 1	B	8.00	8	NH	NH	E	FW	101
2025	MADISON 1	B	15.00	13	RP-NS	NH	E	SWR	97
2025	MADISON 1	B	21.00	30	RP-NS	NH	E	RT/PU	141
2025	MADISON 1	B	35.00	23	RP-WP	NH	EVR	SWR	109
2025	MADISON 1	B	37.10	30	NS-RP	NH	E	SWR	113
2025	MADISON 1	E	5.00	1	RO	RO	E	IN	157
2025	MADISON 1	E	25.10	37	NH	NH	U	STS/GS	0
2025	MADISON 1	F	18.00	1	BR-APP	BR-APP	APP	RA	40
2025	MADISON 1	F	20.00	1	NH	NH	U	STS/GS	125
2025	MADISON 4	A	30.00	5	NH	NH	E	SW/CTR	95
2025	MADISON 4	A	34.00	7	NH	NH	E	IN	103
2025	MADISON 4	A	35.00	51	NH	NH	U	STS/GS	101
2025	MADISON 4	A	42.00	11	NH	NH	U	STS/GS	107
2025	MADISON 4	A	44.00	7	NH	NH	U	STS/GS	97
2025	MADISON 4	A	74.00	6	NH	NH	E	TSI/FW	114
2025	MADISON 6	A	22.00	9	WP	NH-WP	EL	TSI/FW	112
2025	MADISON 11	A	3.00	15	NH-NS	NS-NH	E	PU	121
2025	MADISON 11	A	11.00	22	NS-NH	NH	E	SWR	99
2025	MADISON 11	A	13.00	10	NH	NH	E	CTR	101
2025	MADISON 11	A	16.00	4	NH	NH	E	TSI	123
2025	MADISON 11	A	44.00	3	NS	NH	EVR	PU	135
2025	MADISON 11	A	46.00	1	NS	NH	E	PU	130
2025	MADISON 12	A	46.00	12	NH	NH-HEM	U	STS/GS	149
2025	MADISON 12	B	52.00	5	JL	NH	E	SWR	138
2025	MADISON 12	B	54.10	42	NH-HEM	NH-HEM	UVR	STS/GS	125
2025	MADISON 12	B	54.20	5	NH	NH	E	FW	123

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2025	MADISON 12	B	58.00	6	NH	NH	E	STS/GS	120
2025	MADISON 12	B	65.10	13	NH-HEM	NH-HEM	E	IN/FW	133
2025	MADISON 12	B	94.00	16	NH-HEM	NH-HEM	U	STS/GS	124
2025	MADISON 12	B	95.00	4	NH-HEM	NH-HEM	U	VIH	183
2025	MADISON 12	B	96.00	20	NH-HEM	NH-HEM	U	STS/GS/VIH	100
2025	MADISON 12	B	100.00	6	NH	NH	U	FW/RA	108
2025	MADISON 12	B	101.00	16	NH-HEM	NH-HEM	U	STS/GS	123
2026	MADISON 1	A	66.00	6	NS	NS-NH	E	PU	143
2026	MADISON 1	B	1.00	35	NS	NH-NS	E	PU	146
2026	MADISON 1	B	2.00	3	NS	NS-NH	EVR	PU	170
2026	MADISON 1	B	24.00	18	RP-NS	NH	UVR	SWR	118
2026	MADISON 1	B	28.00	8	NH	NH	E	IN	114
2026	MADISON 1	B	29.00	9	RP	NH	E	SWR	158
2026	MADISON 1	B	31.00	4	NS	NH-NS	E	SWR-T	140
2026	MADISON 1	F	46.00	25	NS	NS-NH	E	SWR-SR	73
2026	MADISON 1	F	47.00	3	NH	NH	E	FW	135
2026	MADISON 1	F	49.00	12	NS	NH-NS	E	SWR-SR	177
2026	MADISON 1	F	76.00	13	NS	NH-NS	E	SWR-SR	96
2026	MADISON 1	F	79.00	24	NS	NH	E	SWR-T	186
2026	MADISON 1	F	101.00	4	NS	NH	E	PU	137
2026	MADISON 1	F	102.00	2	RP-NH	NH	EVR	SWR	140
2026	MADISON 1	F	104.00	13	RP-NH	NH	E	SWR	107
2026	MADISON 1	F	105.00	16	NS-L	NH	E	PU/RT	166
2026	MADISON 1	F	108.00	12	RP	NH	E	SWR-T	143
2026	MADISON 1	F	110.00	11	RP-WS	NH	E	SWR	121
2026	MADISON 1	F	113.00	4	NS	NH	E	PU/SR/TSI	143
2026	MADISON 1	F	115.00	6	NS	NH	E	PU	210
2026	MADISON 1	G	13.00	18	WP-NH	NH-WP	EVR	SWR-T	91
2026	MADISON 1	G	16.00	17	NH	NH	ES	GC	48

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2026	MADISON 1	G	22.00	13	RP	NH	E	RT	140
2026	MADISON 4	A	82.00	5	NH	NH	E	FW	106
2026	MADISON 6	A	53.00	29	NH	NH	U	STS/GS	127
2026	MADISON 6	A	54.10	35	NH-HEM	NH-HEM	U	VIH	143
2026	MADISON 6	A	57.00	7	NH	NH	U	STS/GS	86
2026	MADISON 6	A	59.00	9	NH-HEM	NH-HEM	U	STS/GS	114
2026	MADISON 12	A	11.00	22	NH-HEM	NH-HEM	U	STS/GS	122
2026	MADISON 12	A	12.00	17	NH	NH	E	IN	92
2026	MADISON 12	A	13.00	12	NH	NH	U	STS/GS	94
2026	MADISON 12	A	26.00	17	OF-BR	BR-APP	BR	RA/TSI	51
2027	MADISON 1	A	55.00	3	RP-NS	NH-NS	E	SWR-T	120
2027	MADISON 1	A	62.00	33	RP	NH	E	SWR-T	110
2027	MADISON 1	B	19.10	6	NH	NH	E	IN	84
2027	MADISON 1	B	26.00	11	NH	NH	U	STS	79
2027	MADISON 1	C	24.00	27	RP-NH	NH	UVR	SWR-T	98
2027	MADISON 1	D	20.00	25	NH-HEM	NH-HEM	UL	FW/IN	172
2027	MADISON 1	E	10.00	83	WP	NH-WP	UVR	SWR-T	162
2027	MADISON 1	E	11.00	1	NH	NH	U	STS/GS	105
2027	MADISON 1	E	22.00	5	WP-NH	NH-WP	EVR	STS	100
2027	MADISON 1	H	42.00	15	NH	NH	UL	SW	117
2027	MADISON 1	H	43.00	9	NH-HEM	NH-HEM	UL	STS/GS	151
2027	MADISON 1	H	50.00	23	NH	NH	U	STS/GS	87
2027	MADISON 1	H	51.00	6	NH	NH	E	IN	94
2027	MADISON 1	H	52.00	4	NS	NH	E	SWR-T	95
2027	MADISON 1	H	55.00	5	NS	NH	E	SWR-T	124
2027	MADISON 4	A	40.00	56	RP	NH	EVR	SWR	145
2027	MADISON 4	A	49.10	38	NS	NS-NH	E	SWR-SR-T	95
2027	MADISON 4	A	50.00	3	NH	NH	E	SW	118
2027	MADISON 4	A	52.20	3	RP	NH	E	SWR-T	125

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2027	MADISON 4	A	57.00	9	RP	NH	E	SWR-T	164
2027	MADISON 4	A	61.00	8	RP-NH	NH	E	SWR	150
2027	MADISON 6	A	27.00	2	NH	NH	E	STS	70
2027	MADISON 6	A	58.00	9	NH	NH	E	TSI	73
2027	MADISON 11	A	25.00	5	NH	NH	E	IN	114
2027	MADISON 11	A	32.00	5	NH	NH	U	STS/GS	92
2027	MADISON 12	A	38.00	12	NH	NH	E	IN/FW	93
2027	MADISON 12	A	39.00	13	NH	NH	E	TSI/FW	97
2027	MADISON 12	A	40.00	4	BR-APP	BR-APP	APP	RE/RA	17
2028	MADISON 1	A	19.00	6	NH-NS	NH	E	SWR	132
2028	MADISON 1	A	20.00	6	NH	NH	U	FW	110
2028	MADISON 1	A	26.00	3	NH-RP	NH	E	SW	160
2028	MADISON 1	A	27.00	26	NS-NH	NH-NS	E	PU	139
2028	MADISON 1	A	28.00	17	NS	NH-NS	E	SWR-T	150
2028	MADISON 1	C	70.00	1	RP	NH-BR	E	RT/H/PT	200
2028	MADISON 1	F	118.00	29	NH-HEM	NH-HEM	UVR	STS/GS/VIH	157
2028	MADISON 1	G	94.00	6	NS	NH	E	PU	148
2028	MADISON 1	G	99.00	6	NS	NH	E	PU	175
2028	MADISON 1	G	103.00	3	NS	NS-NH	E	PU	135
2028	MADISON 1	G	105.00	3	NS	NS-NH	E	PU	120
2028	MADISON 1	G	112.00	4	NS	NS-NH	E	PU	177
2028	MADISON 1	G	113.00	2	NS	NS-NH	E	PU	150
2028	MADISON 1	H	45.00	23	NS	NS-NH	E	SWR-SR-T	150
2028	MADISON 1	H	57.00	9	NS	NH-NS	E	SWR-T	168
2028	MADISON 1	H	58.00	4	NS-NH	PH	ES	SW	103
2028	MADISON 1	H	59.00	10	NS	NS-NH	E	SWR-T	160
2028	MADISON 1	H	60.00	7	NS-NH	NH	E	SWR	124
2028	MADISON 1	H	88.00	26	NH	NH	U	STS/GS	98
2028	MADISON 1	H	99.00	3	NS	NS-NH	E	PU/TSI	210

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2028	MADISON 4	A	85.00	30	NH	NH	U	FW	86
2028	MADISON 6	A	20.10	15	NH-HEM	NH-HEM	UL	STS/GS/VIH	123
2028	MADISON 11	A	4.00	23	NH-HEM	NH-HEM	U	STS/GS	101
2028	MADISON 11	A	5.00	24	NH	NH	E	STS	106
2028	MADISON 11	A	19.00	4	NH	NH-HEM	EVR	IN	150
2028	MADISON 12	A	57.00	17	NH-HEM	NH-HEM	U	STS/GS	139
2028	MADISON 12	A	58.00	16	NH	NH	U	TSI/FW/RA	83
2028	MADISON 12	A	68.00	3	BR-APP	BR-APP	APP	RA/FW	45
2028	MADISON 12	A	69.00	13	NH	NH	EVR	IN	109
2028	MADISON 12	B	28.00	44	NS	NS-NH	E	SWR-T	162
2028	MADISON 12	B	29.00	14	NS	NS-NH	E	SWR-SR	153
2029	MADISON 1	A	42.00	50	NS-RP	NH	E	SWR-T	90
2029	MADISON 1	A	46.00	13	NH	NH	U	STS/GS	84
2029	MADISON 1	A	47.00	18	NH	NH	U	VIH	77
2029	MADISON 1	A	61.00	9	NH-HEM	NH-HEM	U	STS	154
2029	MADISON 1	C	52.00	7	NH	NH	U	STS/GS	70
2029	MADISON 1	E	12.00	48	NH	NH	U	STS	97
2029	MADISON 1	E	18.00	47	NS	NH-NS	UVR	STS/GS	164
2029	MADISON 1	E	20.00	20	NS	NS-NH	UVR	GS	138
2029	MADISON 1	E	21.00	14	NH	NH	U	STS/GS	77
2029	MADISON 12	A	7.00	7	WS	NH	E	PU	106
2029	MADISON 12	A	10.00	4	NS	NS-NH	E	PU	163
2029	MADISON 12	A	15.00	6	NS	NH	E	PU	142
2029	MADISON 12	A	16.00	14	WS	NH-WS	E	PU	107
2029	MADISON 12	A	17.00	9	WS	NH-WS	E	PU	106
2029	MADISON 12	A	18.00	15	NS	NH	E	PU	146
2029	MADISON 12	A	19.00	4	NS	NH	E	PU	140
2029	MADISON 12	A	21.00	8	NS	NH-NS	E	PU	204
2029	MADISON 12	A	30.00	12	WS	NH	E	PU/TSI	110

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2029	MADISON 12	A	31.00	7	NS	NH-NS	E	PU/TSI	204
2029	MADISON 12	A	41.00	10	NS	NS-NH	FNA	PU/TSI	182
2029	MADISON 12	A	43.00	10	NS	NS	E	PU/TSI	152
2029	MADISON 12	A	49.00	6	NS-SP	NS-NH	E	RT/PU	134
2029	MADISON 12	A	52.00	9	WS	WS-NH	E	PU	128
2029	MADISON 12	A	59.00	3	WS	NH	E	TSI	150
2029	MADISON 12	B	24.10	2	NH	NH	E	SW	115
2029	MADISON 12	B	25.00	12	NH	NH	E	SW	143
2029	MADISON 12	B	27.00	0	OLD FIELD	OLD FIELD	ZH	RA/FW	110
2029	MADISON 12	B	36.00	4	NH	NH	E	FW	107
2029	MADISON 12	B	38.00	6	NH	NH	E	IN	100
2029	MADISON 12	B	39.00	6	NH	NH	E	FW	94
2029	MADISON 12	B	64.00	11	NS	NS	E	TSI/PU/RA	129
2029	MADISON 12	B	99.00	1	NS	NS-NH	E	SW-SR-T	140
2030	MADISON 1	A	6.00	3	NH	NH	E	IN	117
2030	MADISON 1	B	22.00	28	NH-SP	NH	EVR	IN	119
2030	MADISON 1	B	64.00	10	NH	NH	E	IN	99
2030	MADISON 1	B	66.00	11	NH	NH	U	STS/GS	97
2030	MADISON 1	B	68.00	9	NH-WP	NH-WP	EVR	SWR-T	110
2030	MADISON 1	E	47.00	35	NS	NS-NH	FNA	SWR-T	138
2030	MADISON 1	F	75.00	7	NH	NH	U	TSI/FW	106
2030	MADISON 1	G	23.00	60	NS-RP	NS-NH	E	SWR-T	114
2030	MADISON 1	G	24.00	5	RP-NH	NH	E	SWR-T	138
2030	MADISON 1	G	29.00	9	NS-RP	NH	EVR	SWR	93
2030	MADISON 1	G	30.00	6	NH	NH	U	STS/GS	76
2030	MADISON 1	G	31.00	24	WS-NH	NH	E	IN	84
2030	MADISON 1	G	36.00	9	NH-WS	NH	E	VIH	123
2030	MADISON 1	G	44.00	4	NH	NH	E	FW	100
2030	MADISON 1	G	45.00	3	NH	NH	E	IN	105

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2030	MADISON 1	G	47.00	2	NH	NH	E	FW	120
2030	MADISON 1	G	64.00	2	PH	PH	ES	GC	43
2030	MADISON 1	G	80.00	12	RP	NH	E	SWR-T	135
2030	MADISON 1	G	81.00	1	NH	NH	E	IN	165
2030	MADISON 1	G	85.00	3	NH	NH	E	FW	125
2030	MADISON 1	G	87.00	2	NH	NH	E	FW	90
2030	MADISON 1	G	88.00	1	RP-NH	NH	E	SW	150
2030	MADISON 1	G	90.00	14	RP	NH	E	SWR	164
2030	MADISON 1	G	91.00	2	NH	NH	E	FW	130
2030	MADISON 4	A	18.00	14	NH	NH	EVR	IN	94
2030	MADISON 4	A	45.00	5	NH	NH	E	FW	123
2030	MADISON 11	A	20.00	7	NH	NH	E	IN	85
2030	MADISON 11	A	29.00	15	NH	NH	E	SW/FW	104
2030	MADISON 12	B	63.00	71	RP-NS	NS-NH	E	SWR-T	157
2031	MADISON 1	D	11.10	3	NH	NH	U	TSI/FW	0
2031	MADISON 1	D	12.00	61	NH-HEM	NH-HEM	UVR	STS	133
2031	MADISON 1	D	13.00	7	NH	NH	U	STS/GS	124
2031	MADISON 1	D	21.00	20	NH	NH	U	STS/GS	138
2031	MADISON 1	D	30.00	9	NH	NH	U	FW/IN	157
2031	MADISON 1	D	31.00	4	NH-HEM	NH-HEM	U	STS/GS	245
2031	MADISON 1	D	32.00	3	NH-HEM	NH-HEM	U	STS/GS	215
2031	MADISON 1	D	37.00	91	RP	NH	U	GS	147
2031	MADISON 1	E	6.00	14	NH-HEM	NH-HEM	U	STS	91
2031	MADISON 1	E	17.00	2	NH-NS	NH-NS	UVR	PU/FW	100
2031	MADISON 1	E	19.00	12	NH	NH	U	STS	101
2031	MADISON 1	H	24.00	7	NH-HEM	NH-HEM	U	STS/GS	106
2031	MADISON 1	H	26.00	2	PH-BR	NH	E	TSI/FW	107
2031	MADISON 1	H	27.00	9	NH-HEM	NH-HEM	UL	STS/GS	147
2031	MADISON 1	H	33.00	33	NH-HEM	NH-HEM	U	STS/GS	115

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2031	MADISON 1	H	36.00	2	NH	NH	U	TSI/FW	100
2031	MADISON 1	H	37.00	17	NH-HEM	NH-HEM	U	STS/GS	141
2031	MADISON 1	H	63.00	6	NS-RP	NH-NS	E	SWR-T	124
2031	MADISON 1	H	66.00	12	NH	NH	EVR	TSI/FW	86
2031	MADISON 1	H	68.00	17	NH	NH	E	SW	94
2031	MADISON 1	H	70.00	65	NS	NH-NS	E	SWR-T	191
2032	MADISON 1	B	9.00	16	NH-HEM	NH-HEM	UL	STS/GS	111
2032	MADISON 1	B	12.00	14	NH	NH	E	TSI/FW	127
2032	MADISON 1	B	16.00	7	NH-HEM	NH-HEM	U	STS/GS	118
2032	MADISON 1	B	84.00	26	WP-RP-NH	NH-WP	EVR	SWR-T	100
2032	MADISON 1	B	86.00	9	WP	NH-WP	EVR	SWR-T	214
2032	MADISON 1	B	102.00	3	NH-WP	NH-WP	EVR	SWR-T	143
2032	MADISON 1	B	104.00	1	WP	NH-WP	EVR	RT	160
2032	MADISON 1	E	29.00	133	NS	NS-NH	FNA	SWR-T	183
2032	MADISON 1	E	31.00	3	NS	NS	FNA	SW	160
2032	MADISON 1	G	3.00	17	NH	NH	U	STS/GS	124
2032	MADISON 1	G	11.00	57	NH	NH	U	STS/GS	118
2032	MADISON 1	G	25.00	44	NH	NH	U	STS/GS	131
2032	MADISON 1	G	92.00	24	NH	NH	E	SW	116
2032	MADISON 12	B	61.00	16	NH	NH	E	FW	104
2032	MADISON 12	B	62.00	18	NH-WP	NH-WP	EVR	FW/IN	114
2033	MADISON 1	A	50.00	6	NH	NH	U	STS/GS	74
2033	MADISON 1	A	59.10	5	NH	NH	U	STS/GS	68
2033	MADISON 1	B	37.20	25	RP-NH	NH	E	IN	137
2033	MADISON 1	B	90.00	2	BR-APP	BR-APP	APP	RA	35
2033	MADISON 1	D	1.00	13	WP	NH-WP	EVR	RT	122
2033	MADISON 1	D	3.00	10	WP-NH	NH-WP	EVR	IN	206
2033	MADISON 1	D	15.00	20	WP-NH	NH-WP	EVR	SWR-T	0

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2033	MADISON 1	F	1.00	3	RP-NH	NH	E	SW	140
2033	MADISON 1	F	16.00	27	RP-NH	NH	U	SWR	94
2033	MADISON 1	F	30.00	26	RP-NH	NH	UVR	SWR	135
2033	MADISON 1	F	36.00	9	RP	NH	U	SWR	150
2033	MADISON 1	F	57.00	12	RP-NH	NH	UVR	SWR	25
2033	MADISON 1	F	86.00	2	NH	NH	E	TSI	93
2033	MADISON 1	H	47.00	15	NH	NH	U	STS/GS	143
2033	MADISON 1	H	65.00	14	NH	NH	E	SW	114
2033	MADISON 1	H	117.00	4	NH	NH	E	FW	95
2033	MADISON 1	H	118.00	12	PH	NH	E	FW	83
2033	MADISON 4	A	7.00	4	NH	NH	E	STS/GS	105
2033	MADISON 4	A	8.00	21	RP-NH	NH	EVR	SWR-T	133
2033	MADISON 4	A	10.00	18	RP-NH	NH	EVR	SWR-T	140
2033	MADISON 4	A	13.00	64	RP-NH	NH	EVR	SWR	70
2033	MADISON 4	A	19.00	15	RP-NH	NH	EVR	RC/SAL/VIH/H	113
2033	MADISON 4	A	20.00	12	RP-NH	NH-HEM	EVR	SWR	136
2033	MADISON 4	A	32.00	4	RP-NH	NH	EVR	SWR-T	110
2034	MADISON 1	A	21.00	14	RP	NH	E	SWR-T	189
2034	MADISON 1	A	24.00	10	NS	NS-NH	E	PU	168
2034	MADISON 1	A	25.00	11	NS	NS-NH	E	PU	171
2034	MADISON 1	A	31.00	1	NH	NH	E	IN	125
2034	MADISON 1	A	37.00	8	NS	NH-NS	E	PU	186
2034	MADISON 1	A	51.00	32	JL	NH	E	SWR	149
2034	MADISON 1	A	52.00	45	JL-RP	NH	E	SWR	89
2034	MADISON 1	B	4.00	34	RP	NH	E	SWR	128
2034	MADISON 1	B	30.00	17	RP	NH	E	SWR	104
2034	MADISON 1	B	33.00	6	RP	NH	E	SWR	112
2034	MADISON 1	B	34.00	5	RP	NH-WP	EVR	SWR-T	142
2034	MADISON 1	F	9.00	9	RP-NH	NH	UVR	SWR	122

Year	Forest	Comp	Stand	Acres	Forest Type	Objective Type	Mngt. Dir.	Treatment	Basal Area
2034	MADISON 1	F	54.00	9	RP	NH	U	SWR	124
2034	MADISON 1	G	74.00	3	PH	PH	ES	GC	35
2034	MADISON 4	A	51.00	15	NH	NH	E	SW/ST	89
2034	MADISON 11	A	10.00	19	NH-HEM	NH-HEM	U	STS/GS	138
2034	MADISON 11	A	18.00	13	NH-HEM	NH-HEM	U	STS/GS	151
2034	MADISON 12	A	63.00	20	NH-HEM	NH-HEM	U	STS/GS	152
2034	MADISON 12	B	73.00	16	NH	NH	E	IN	108
2034	MADISON 12	B	79.00	3	NS	NS	E	TSI/PU	83
2034	MADISON 12	B	80.00	2	NH	NH	E	FW	30

Grassland Maintenance Mowing Schedule: Mowed areas are treated on a five year cycle

Year	Forest	Comp	Stand	Acres	Forest Type	Obj. Type	Mngt. Dir.	Treatment
2015	MADISON 1	C	26.00	1	OF-APP	OF-APP	APP	RA/M
2015	MADISON 4	A	3.00	3	OLD FIELD	OLD FIELD	OF	M
2015	MADISON 12	A	23.00	5	OLD FIELD	OLD FIELD	OF	M
2015	MADISON 12	A	24.00	11	NS	OLD FIELD	OF	M
2015	MADISON 12	A	25.00	4	OLD FIELD	OLD FIELD	OF	M
2015	MADISON 12	A	51.00	2	OLD FIELD	OLD FIELD	OF	M/RE
2017	MADISON 12	A	5.00	7	OLD FIELD	OLD FIELD	OF	M
2017	MADISON 12	B	81.00	10	OLD FIELD	OLD FIELD	OF	M
2018	MADISON 1	B	98.00	3	OF-APP	BR-APP	APP	M
2018	MADISON 4	A	80.00	4	OLD FIELD	OLD FIELD	OF	M
2019	MADISON 1	H	107.00	7	OLD FIELD	OLD FIELD	OF	M
2019	MADISON 1	H	119.00	15	OLD FIELD	OLD FIELD	OF	M
2020	MADISON 1	C	26.00	1	OF-APP	OF-APP	APP	RA/M
2020	MADISON 4	A	3.00	3	OLD FIELD	OLD FIELD	OF	M
2020	MADISON 12	A	23.00	5	OLD FIELD	OLD FIELD	OF	M
2020	MADISON 12	A	24.00	11	NS	OLD FIELD	OF	M
2020	MADISON 12	A	25.00	4	OLD FIELD	OLD FIELD	OF	M
2020	MADISON 12	A	51.00	2	OLD FIELD	OLD FIELD	OF	M/RE
2022	MADISON 12	A	5.00	7	OLD FIELD	OLD FIELD	OF	M
2022	MADISON 12	B	81.00	10	OLD FIELD	OLD FIELD	OF	M
2023	MADISON 1	B	98.00	3	OF-APP	BR-APP	APP	M
2023	MADISON 4	A	80.00	4	OLD FIELD	OLD FIELD	OF	M
2024	MADISON 1	H	107.00	7	OLD FIELD	OLD FIELD	OF	M
2024	MADISON 1	H	119.00	15	OLD FIELD	OLD FIELD	OF	M
2025	MADISON 1	C	26.00	1	OF-APP	OF-APP	APP	RA/M
2025	MADISON 4	A	3.00	3	OLD FIELD	OLD FIELD	OF	M
2025	MADISON 12	A	23.00	5	OLD FIELD	OLD FIELD	OF	M
2025	MADISON 12	A	24.00	11	NS	OLD FIELD	OF	M
2025	MADISON 12	A	25.00	4	OLD FIELD	OLD FIELD	OF	M
2025	MADISON 12	A	51.00	2	OLD FIELD	OLD FIELD	OF	M/RE
2027	MADISON 12	A	5.00	7	OLD FIELD	OLD FIELD	OF	M
2027	MADISON 12	B	81.00	10	OLD FIELD	OLD FIELD	OF	M
2028	MADISON 1	B	98.00	3	OF-APP	BR-APP	APP	M
2028	MADISON 4	A	80.00	4	OLD FIELD	OLD FIELD	OF	M
2029	MADISON 1	H	107.00	7	OLD FIELD	OLD FIELD	OF	M
2029	MADISON 1	H	119.00	15	OLD FIELD	OLD FIELD	OF	M
2030	MADISON 1	C	26.00	1	OF-APP	OF-APP	APP	RA/M

Year	Forest	Comp	Stand	Acres	Forest Type	Obj. Type	Mngt. Dir.	Treatment
2030	MADISON 4	A	3.00	3	OLD FIELD	OLD FIELD	OF	M
2030	MADISON 12	A	23.00	5	OLD FIELD	OLD FIELD	OF	M
2030	MADISON 12	A	24.00	11	NS	OLD FIELD	OF	M
2030	MADISON 12	A	25.00	4	OLD FIELD	OLD FIELD	OF	M
2030	MADISON 12	A	51.00	2	OLD FIELD	OLD FIELD	OF	M/RE
2032	MADISON 12	A	5.00	7	OLD FIELD	OLD FIELD	OF	M
2032	MADISON 12	B	81.00	10	OLD FIELD	OLD FIELD	OF	M
2033	MADISON 1	B	98.00	3	OF-APP	BR-APP	APP	M
2033	MADISON 4	A	80.00	4	OLD FIELD	OLD FIELD	OF	M
2034	MADISON 1	H	107.00	7	OLD FIELD	OLD FIELD	OF	M
2034	MADISON 1	H	119.00	15	OLD FIELD	OLD FIELD	OF	M

4. Annual Summary of Stand Treatment Schedule

Year	Pine	Spruce	Hardwood Sawtimber	Firewood	Other	Total
2015	200	49	195	15	11	470
2016	249	81	125	0	0	450
2017	181	170	84	5	21	461
2018	142	81	243	0	0	466
2019	257	0	156	0	22	435
2020	234	109	134	1	6	484
2021	138	88	218	0	19	463
2022	187	138	116	0	32	473
2023	218	173	46	0	36	473
2024	249	172	38	0	0	459
2025	304	70	80	0	1	455
2026	96	152	162	0	17	427
2027	225	46	144	0	4	419
2028	4	188	201	0	3	396
2029	0	252	139	0	1	392
2030	102	137	132	0	2	373
2031	91	73	231	2	0	397
2032	36	136	214	0	0	386
2033	267	0	68	0	2	337
2034	170	32	86	0	3	291
Total	**3,350**	**2,147**	**2,812**	**23**	**180**	**8,507**
Average	168	107	141	1	9	425

The Pine column includes acres of stands harvested in which the primary species are red pine, Scotch pine, white pine, or larch. The Spruce column includes acres of stands scheduled for harvest in which the primary species are Norway spruce or white spruce. Hardwood Sawtimber includes acres of northern hardwood stands scheduled for harvest of sawtimber. These stands also include varying amounts of firewood. The Firewood column includes the acres of stands scheduled for harvest in which firewood is the primary product. The Other column includes acres of stand treatments for activities such as clearcuts for grouse habitat and cutting trees to releasing apple trees or improve wildlife habitat.

B. Management Actions for Facilities and Information

1. Scheduled Actions

Year	Action	Description
2015	Action 3.1.3	Update existing records to a complete inventory of existing wooden bridges, boardwalks and culverts on the Brookfield Trail System.
2015	Action 3.3.1	Provide one universally accessible picnic table at the picnic pavilion at the Moscow Hill Assembly Area.
2015	Action 3.3.2	Provide one ADA compliant campsite at the Moscow Hill Camping Area and one at Cherry Ridge Camping Area on Charles E. Baker State Forest.
2015	Action 3.1.8	Formally designate eight additional single camp sites outside of the main campgrounds on the Unit.
2015	Action 3.1.9	Designate the camp site on Madison 12, at the Little Assembly Area for overnight camping only from November 1st to April 30th.
2015	Action 3.1.13	Install motor vehicle barriers to prevent illegal off-road motor vehicle use and trash dumping at the entrance to the shale pit on Madison RA #12, on T.T. #1.
2015	Action 3.4.2	Provide the Brookfield Auto Tour brochure on the DEC web site.
2016	Action 3.1.13	Install motor vehicle barriers to prevent illegal off-road motor vehicle use and trash dumping at the entrance to the shale pit on Madison RA #4, on Quaker Hill Road.
2016	Action 3.1.13	Install motor vehicle barriers to prevent illegal off-road motor vehicle use and trash dumping at entrance to shale pit on Madison RA #1, on T.T. #7.
2016	Action 3.4.3	Develop a map brochure for Madison RA #1, Moscow Road Camping Area and Assembly Area and the Cherry Ridge Camping Area. These maps will be available for public distribution and will be on the DEC web site.

Year	Action	Description
2016	Action 3.4.2	Update the rules and regulations on the DEC web site, after the new proposed changes are formally approved.
2016	Actions 3.2.1, 3.2.2 & 3.2.3	Implement Special Area regulations for the Moscow Hill Camping and Assembly Areas and elsewhere on the Unit.
2017	Action 3.3.4	Reconstruct the horse mounting ramp and platform to be universally accessible and meet ADA standards.
2017	Action 3.3.4	Designate one site at the Moscow Hill Assembly Area as an ADA compliant camp site.
2017	Action 3.3.5	Install universally accessible path from parking lot to Moscow Hill Assembly Area kiosk and pavilion.
2017	Action 3.4.1	Install kiosk at Madison RA #6, Vidler Road.
2017	Action 3.4.1	Install kiosk at Madison RA #s 11 & 12, Fairgrounds Road.
2018	Action 3.4.1	Install kiosk at Madison RA #1, south entrance
2019	Action 2.3.1	Repaint 49.9 miles of boundary lines on Madison 1 & 4.
2019	Action 2.5.1	Repair lost Pond dike/water flow outlet as identified from prior engineering report.
2019	Action 3.4.1	Install kiosk at Moscow Hill Assembly Area.
2020	Action 1.5.1	Collect forest inventory data on Madison RA #s 1, 4, 6, 11 & 12 comprising 13,398 acres
2020	Action 2.3.1	Repaint 31.2 miles of boundary lines on Madison 6, 11 & 12.
2020	Action 3.4.1	Install kiosk at Moscow Hill camping Area.
2020	Action 2.5.1	Repair Woodland Pond dike/water flow outlet as identified from prior engineering report.
2021	Action 1.5.1	Complete forest inventory data collection on the Unit.
2026	Action 2.3.1	Repaint 49.9 miles of boundary lines on Madison 1 & 4.
2027	Action 2.3.1	Repaint 31.2 miles of boundary lines on Madison 6, 11 & 12.
2033	Action 2.3.1	Repaint 49.9 miles of boundary lines on Madison 1 & 4.
2034	Action 2.3.1	Repaint 31.2 miles of boundary lines on Madison 6, 11 & 12.

2. Annual, Ongoing Management Actions and Those Performed as Needed

Action	Description
Action 1.4.9	Maintain bluebird nest boxes with cooperation from volunteers.
Action 2.5.2	Annual mowing of the Lost Pond and Woodland Pond dike areas.
Action 1.5.2	Monitor the impact of deer browsing on forest health and regeneration.
Action 1.5.4	Conduct annual insect and disease aerial surveys.
Action 2.2.2	Maintain 23.3 miles of access roads: Perform annual mowing of sides of access roads. Grade and recrown the roads every other year. Maintain culverts as needed.

Action	Description
Action 2.2.2	Resurface and replace culverts on up to 9 miles of access roads.
Action 3.1.1	Mow Moscow Hill Assembly Area and Camping Area and the Little Assembly Area.
Action 3.1.1	Periodic horse manure removal from the Assembly Area and Camping Area stalls.
Action 3.1.1	Provide portable out houses during the trail riding season as funding allows. Two port-a-johns will be provided at the Moscow Hill Assembly Area and two will be provided at the adjacent Camping Area.
Action 3.1.1	Maintain the 54 horse stalls, picnic tables, and other structures at these sites as needed.
Action 3.1.1	Maintain all facilities in a rustic manner consistent with natural surroundings.
Action 3.2.2	Maintain the 59 miles of off-road Brookfield Trail System for safe, enjoyable and environmentally sustainable recreation use.
Action 3.1.4	Replace an average of at least five of the wooden bridges and/or boardwalks each year on the trail system with culverts and/or gravel hardened trail surfaces.
Action 3.1.5	Maintain the Cherry Ridge Camping Area, the Little Assembly Area camp site/day use area, the lean-to and horse barn on Trail #17, the lean-to on Trail #51 near Woodland Pond and the primitive camp site on T.T. #7 known as Elmer's Spring.
Action 3.1.6	Continue partnering with the various organized user groups including the New York State Horse Council, Plantation Walking Horse Club and both the Sherburne Area and Central New York Snowmobile Associations to help maintain the Brookfield Trail System through their respective Adopt-A-Natural-Resource agreements (AANRs).
Action 3.1.11	Maintain and manage the recreational facilities to provide a safe user experience.
Action 3.4.3	Maintain all signs communicating information to the public on the Unit.

VIII. Glossary

Access trails - may be permanent, unpaved and do not provide all-weather access with the Unit. These trails are originally designed for wood product removal and may be used to meet other management objectives such as recreational trails. These trails are constructed according to Best Management Practices.

Age class - trees of a similar size originating from a single natural event or regeneration activity. *see* cohort.

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).

Beech bark disease - an insect and disease pathogen complex involving a scale insect (*Cryptococcus fagi*) and a nectria fungus (*Nectria coccinea* var. *faginata*). The insect pierces the bark to feed, allowing a place for the fungus to enter the tree. Fungal activity interrupts the tree's normal physiological processes and a severely infected tree will most likely die.

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.

Biological diversity (Biodiversity) - the variety, abundance, and interactions of life forms found in areas ranging in size from local through regional to global. Biodiversity considers both the ecological and evolutionary processes, functions, and structures of plants, animals and other living organisms, as well as the variety and abundance of species, communities, gene pools, and ecosystems.

Biological legacy - an organism, living or dead, inherited from a previous ecosystem - *note* biological legacies often include large trees, snags, and downed logs left after timber harvesting.

Browse - portions of woody plants including twigs, shoots, and leaves consumed by animals such as deer.

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.

Cavity tree / Den tree - a tree containing an excavation sufficiently large for nesting, dens or shelter; tree may be alive or dead.

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.

Climax forest - an ecological community that represents the culminating stage of a natural forest succession for its locality / environment.

Coarse Woody Material (CWM) - any piece(s) of large dead woody material on the ground in forest stands or in streams.

Conifer - a cone-bearing tree, also referred to as softwood; *note* the term often refers to gymnosperms in general.

Conversion - a change from one silvicultural system to another or from one tree species to each other.

Coppice - an even-aged silvicultural practice designed to stimulate the production of new stems from the cut stumps of the parent vegetation.

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.

Cover type - the plant species forming a majority of composition across a given area.

Crop tree - any tree selected to become a component of a future commercial timber harvest.

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

Cultural resources - significant historical or archaeological assets on sites as a result of past human activity which are distinguishable from natural resources.

Cutting cycle - the number of years between harvest or regeneration cuts in a stand.

Cutting interval - the number of years between treatments in a stand.

Deciduous - tree and shrub species that lose their leaves in autumn.

Defoliation - the partial or complete loss of leaves, usually caused by an insect, disease, or drought.

Designated recreational trail - a Department authorized recreational trail that is signed and/or mapped.

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

Disturbance - a natural or human-induced environmental change that alters one or more of the floral, faunal, and microbial communities within an ecosystem. Timber harvesting is the most common human disturbance. Windstorms and fire are examples of natural disturbance.

Ecological 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.

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.

Ecosystem management - the appropriate integration of ecological, economic, and Esocial 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.

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.

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.

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.

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.

Exotic - a plant or species introduced from another country or geographic region outside its natural range.

Eyas - A nestling (unfledged) hawk or falcon, especially one to be trained for falconry.

Fine Woody Material (FWM) - any piece(s) of small dead woody material on the ground in forest stands or in streams.

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

Forest Stewardship Council - A non-profit organization devoted to encouraging the responsible management of the world's forests.

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.

Forest type - a category of forest usually defined by its vegetation, particularly its dominant vegetation as based on percentage cover of trees.

Forested wetland - an area characterized by woody vegetation where soil is periodically saturated with or covered by water.

Fragmentation - the process by which a landscape is broken into small islands of forest within a mosaic of other forms of land use or ownership - islands of a particular age class that remain in areas of younger-aged forest - fragmentation is a concern because of the effect of noncontiguous forest cover on connectivity and the movement and dispersal of animals in the landscape.

Grassland - land on which the vegetation is dominated by grasses, grass-like plants, or forbs.

Group selection - an uneven-aged silvicultural practice where mature trees are removed in small groups (typically the diameter of the grouping is twice the average tree height) for the purpose of establishing a new age class of trees within the stand.

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.

Hardwoods - broad-leafed, deciduous trees belonging to the botanical group Angiospermae.

Haul roads - permanent, unpaved roads, not designed for all-weather travel, but are constructed primarily for the removal of wood products and provide only limited access within the Unit. As such, these roads may or may not be open for public use. The standards for these roads are those of Class C roads.

Herbicide - a chemical used for killing or controlling the growth of plants.

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.

Hydrofracking – The hydraulic fracturing process used to release natural gas from limited porosity formations. Fluids are injected into the formation under pressure.

Invasive species -
1.) A plant or animal that spreads rapidly and in great numbers in a region, often to the point of being a nuisance in an ecosystem where it is not native.
2.) Species that, after they have been moved from their native habitat, spread on their own, displacing other species, and sometimes causing environmental damage.

Late Successional Forest – Those areas where there is a significant component of trees greater than 140 years old. Forests in this age are beginning to develop old-growth characteristics such as large size, large snags, large cavities, rough bark and large dead trees and fallen logs.

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.

Mesic - of sites or habitats characterized by intermediate moisture conditions, i.e., neither decidedly wet nor dry.

Mountain biking - the sport or activity of riding a mountain bike (a type of bicycle that has a strong frame, thick tires, and straight handlebars and that is used for riding over rough terrain). For the purpose of this document, mountain bikes will include all varieties of off road bicycles regardless of tire width or other modifications.

Multiple use - a strategy of land management fulfilling two or more objectives, e.g. forest products removal and recreation.

Native species - an indigenous species that is normally found as part of a particular ecosystem.

Natural area - an ecological community where physical and biological processes are allowed to operate without direct human intervention. (Helms, 1998)

Natural regeneration - the establishment of a forest stand from natural seeding, sprouting, suckering or layering.

Northern hardwood forest - 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.

Old growth -
1.) Forests that approximate the structure, composition, and functions of native forest prior to European settlement. They vary by forest type, but generally include more large trees, canopy layers, standing snags, native species, and dead organic matter than do young or intensively managed forests.
2.) 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, alluvial accumulation, and unconsolidated layers. The understory displays well developed and diverse surface herbaceous layers.

Overstory - that portion of the trees in a forest forming the upper or uppermost canopy layer.

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

Pit and mound topography - an example of microsite topography that is the result of tree uprooting where the depression or pit is formed at the former location of the root structure and the mound is formed from the up-thrown roots and soil mass; creates heterogeneous soil and microclimatic conditions in ecosystems predisposed to tree uprooting.

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.

Public forest access roads - permanent, unpaved roads marked for motor vehicle use. They may be designed for all-weather use depending on their location and surfacing. These roads provide primary access within the Unit. The standards for these roads are those of the Class A and Class B access roads.

Pulpwood - low grade or small diameter logs used to make paper products, wood chips, etc.

Recruitment (legacy) tree - A live tree 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.

Reforestation - the re-establishment of forest cover by natural or artificial means.

Regeneration - naturally or artificially established seedlings or saplings existing in a forest stand.

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.

Residual stand - a stand composed of trees remaining after any type of intermediate harvest.

Riparian zone - an area adjoining a body of water, normally having soils and vegetation characteristic of 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.

Rotation - the period of years required to establish and grow timber crops to a specified maturity. Rotation being the predetermined time frame between successive harvest/ regeneration cuts in a given stand under even-aged management.

Sapling - a small tree, usually defined as being between 1 and 5 inches diameter at breast height.

Sawtimber - trees that are generally 12 inches and larger diameter at breast height.

Seedling - a young tree originating from seed that is less than 4 feet tall.

Seedling/sapling - trees less than 6 inches diameter at breast height.

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.

Selective cut - 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. (Ford-Robertson, F. C. 1971)

Selection system - the removal of trees over the entire range of size classes either singly or in groups at relatively short intervals, resulting in continuous establishment of reproduction. Individual trees are chosen for removal due to their maturity because they are of poor quality or thinning is needed to improve the growth rate of the remaining trees.

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.

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.

Silviculture - the art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.

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.

Softwoods - generally refers to needle and/or cone bearing trees (conifers) belonging to the botanical group Gymnospermae.

Species - the main category of taxonomic classification into which genera are subdivided, comprising a group of similar interbreeding individuals sharing a common morphology, physiology, and reproductive process.

Stand - a contiguous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit.

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 downed woody debris.

State Forest / State Reforestation Area - lands owned by the State of New York, administered by the Department of Environmental Conservation and authorized by Environmental Conservation Law to be devoted to the establishment and maintenance of forests for watershed protection, the production of timber and other forest products, and for recreation and kindred purposes. These forests shall be forever devoted to the planting, growth and harvesting of such trees (Title 3 Article 9-0303 ECL).

Stumpage - The value of timber as it stands uncut.

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

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.

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

Thinning - a silvicultural treatment made to reduce stand density of trees primarily to improve growth of remaining trees, enhance forest health, or recover potential mortality.

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

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.

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.

Uneven-aged system - a planned sequence of treatments designed to regenerate a stand with three or more age classes.

Uneven-aged stand/forest - a stand with trees of three or more distinct age classes, either intimately mixed or in small group

Variable retention - an approach to harvesting based on the retention of structural elements or biological legacies (trees, snags, logs, etc.) in the harvested stand to achieve various ecological objectives (i.e. structural complexity, riparian protection, habitat improvement). The structural elements may be retained singly or in patches.

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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.

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.

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X. APPENDICIES

APPENDIX I Wetlands

Classified Freshwater Wetlands on the Unit

Forest	Description	Wetland ID	Legal Class	Acres on the Unit*
MADISON 1	Alder-open	SH-1	2	18.6
MADISON 1	Woodland Pond	HB-6	2	46.6
MADISON 1	Lost Pond	HB-5	2	16.7
MADISON 4	Shrub	BR-7	2	0.5
MADISON 4	Alder-open	HB-7	2	18.0
MADISON 11	Hemlock, hardwoods	BR-6	2	0.1
MADISON 12	Hemlock, white cedar, shrub	BR-4	1	261.7
MADISON 12	Balsam fir, white pine, hemlock, cedar	BR-5	2	20.8

* Some wetlands extend across onto adjacent private lands. Only the area on the Unit is listed.

Unclassified Freshwater Wetlands on the Unit

Forest	Compartment	Stand	Acres	Forest Type
MADISON 1	A	2.00	4	WET-ALDER
MADISON 1	A	8.00	10	PH-NH
MADISON 1	A	10.00	2	PH
MADISON 1	A	17.00	19	NH
MADISON 1	A	30.00	3	NH
MADISON 1	A	53.00	1	PH
MADISON 1	A	56.00	1	WET-OPEN
MADISON 1	A	58.00	5	WET-OPEN
MADISON 1	A	60.00	2	WET-OPEN
MADISON 1	B	11.00	1	WET-ALDER
MADISON 1	B	27.00	20	HEM-NH
MADISON 1	B	38.00	1	WET-OPEN
MADISON 1	B	40.00	3	BR
MADISON 1	B	42.10	5	WET-OPEN
MADISON 1	B	42.20	5	BR
MADISON 1	B	42.30	1	WET-OPEN
MADISON 1	B	43.00	6	HEM-NH

Forest	Compartment	Stand	Acres	Forest Type
MADISON 1	B	44.00	1	HEM
MADISON 1	C	2.00	2	NH-HEM
MADISON 1	C	59.00	7	WET-OPEN
MADISON 1	C	61.00	9	HEM-NH
MADISON 1	C	65.00	4	WET-ALDER
MADISON 1	D	2.00	3	WET-ALDER
MADISON 1	D	26.00	11	WET-OPEN
MADISON 1	E	8.00	1	POND-MAN
MADISON 1	E	25.20	2	NH-HEM
MADISON 1	F	3.00	21	NH-HEM
MADISON 1	F	4.00	2	HEM
MADISON 1	F	26.00	6	PH-NH
MADISON 1	F	35.00	8	NH
MADISON 1	F	37.00	5	NH
MADISON 1	F	38.00	2	PH
MADISON 1	F	41.00	10	HEM-NH
MADISON 1	F	42.00	2	NH
MADISON 1	F	43.00	6	NH-HEM
MADISON 1	F	58.00	4	WET-ALDER
MADISON 1	F	84.20	3	HEM-NH
MADISON 1	F	89.00	2	PH
MADISON 1	F	106.00	3	SH
MADISON 1	F	109.00	2	WET-ALDER
MADISON 1	F	114.00	1	WET-ALDER
MADISON 1	G	12.00	15	NH
MADISON 1	G	32.00	10	WET-OPEN
MADISON 1	G	52.00	5	BR-NS
MADISON 1	G	86.00	1	WET-ALDER
MADISON 1	H	13.00	11	WET-ALDER
MADISON 1	H	32.00	13	WET-ALDER
MADISON 1	H	56.00	4	WET-ALDER
MADISON 1	H	71.00	1	WET-ALDER
MADISON 1	H	75.00	2	WET-ALDER
MADISON 1	H	79.00	1	SH
MADISON 1	H	90.00	4	WET-ALDER
MADISON 1	H	109.00	14	HEM-NH
MADISON 1	H	113.00	1	BR
MADISON 4	A	11.20	2	PH-NH
MADISON 4	A	14.10	3	POND

Forest	Compartment	Stand	Acres	Forest Type
MADISON 4	A	14.20	4	WET-ALDER
MADISON 4	A	22.20	3	HEM
MADISON 4	A	22.30	4	WET-OPEN
MADISON 4	A	29.10	1	WET-ALDER
MADISON 4	A	29.20	3	NH
MADISON 4	A	46.00	9	NH-HEM
MADISON 4	A	48.00	2	WET-ALDER
MADISON 4	A	56.00	11	WET-ALDER
MADISON 4	A	62.00	7	WET-OPEN
MADISON 4	A	65.00	3	PH
MADISON 4	A	66.00	5	POND
MADISON 4	A	73.00	7	NH-HEM
MADISON 4	A	78.00	5	WET-ALDER
MADISON 4	A	84.00	10	WET-ALDER
MADISON 4	A	88.00	14	WET-ALDER
MADISON 4	A	95.00	1	WET-ALDER
MADISON 6	A	3.00	45	NH-HEM
MADISON 6	A	12.00	6	NH-HEM
MADISON 6	A	13.00	2	NH-HEM
MADISON 6	A	14.00	4	NH-HEM
MADISON 6	A	30.00	17	WET-ALDER
MADISON 6	A	52.00	19	NS
MADISON 11	A	14.00	4	NH-HEM
MADISON 11	A	15.00	5	POND
MADISON 11	A	37.00	5	WET-ALDER
MADISON 11	A	40.00	3	WET-ALDER
MADISON 11	A	47.00	2	WET-ALDER
MADISON 12	A	22.00	13	NH-MIXED
MADISON 12	B	1.10	3	NS
MADISON 12	B	6.00	3	POND-MAN
MADISON 12	B	30.00	8	NS-NH
MADISON 12	B	31.00	5	HEM-C
MADISON 12	B	35.20	4	WET-ALDER
MADISON 12	B	40.00	14	PH
MADISON 12	B	42.00	7	PH-BR
MADISON 12	B	44.00	20	WET-ALDER
MADISON 12	B	45.00	4	WET-OPEN
MADISON 12	B	48.00	7	NH-HEM
MADISON 12	B	57.00	13	NS-RP

Forest	Compartment	Stand	Acres	Forest Type
MADISON 12	B	65.20	7	CEDAR
MADISON 12	B	67.00	1	WET-ALDER
MADISON 12	B	69.00	0	WET-OPEN
MADISON 12	B	78.00	7	NH-HEM
MADISON 12	B	82.00	20	WET-ALDER
MADISON 12	B	83.00	9	POND
MADISON 12	B	85.00	4	OLD FIELD
MADISON 12	B	98.00	2	RP-BR

APPENDIX II Code Definitions

Code Definitions for Protective Status of Wildlife on the Brookfield Management Unit

The protective status of species listed in Appendices III, IV, and V is based on Federal and State regulations. Following column entries for common and scientific names, a "protective status" category appears. The following definitions are adopted for the terms as used in The Checklist of Amphibians, Reptiles, Birds, and Mammals of New York State, Including their Protective Status.

Code	Federal Definitions
E	*Endangered Species* are determined by the U. S. Department of the Interior to be in danger of extinction throughout all or a significant portion of their range. All such species are fully protected, including their habitat.
T	*Threatened Species* are determined by the U. S. Department of the Interior as likely to become endangered within the foreseeable future throughout all or a significant portion of their range. All such species are fully protected.
UN	*"Unprotected"* under Federal Law.
Code	**State Definitions**
P	*Protected* wildlife means "wild game, protected wild birds, and endangered species of wildlife" as defined in the Environmental Conservation Law.
E	*Endangered Species* are determined by the DEC to be in imminent danger of extinction or extirpation in New York State, or are federally listed as endangered. All such species are fully protected under New York State Environmental Conservation Law.

T	*Threatened Species* are determined by the DEC as likely to become endangered within the foreseeable future in New York State, or are Federally listed as threatened. All such species are fully protected under the New York State Environmental Conservation Law.
SC	*Special Concern Species* are those native species that 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 exists within DEC rules and regulations, but such designation does not in itself provide any additional protection. However, Special Concern species may be protected under other laws.
GS	*Game species* are defined as "big game", "small game", or "game bird" species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.
UN	*Unprotected* means that the species may be taken at any time without limit. However, a license to take may be required.

APPENDIX III Birds

Species of Birds In the Vicinity of the Brookfield Management Unit. 2000-2004 New York State Breeding Bird Atlas Data.

Confirmed Species of Breeding Birds on or Within the Vicinity of the Unit

Common Name	Scientific Name	NY Legal Status
American Crow	*Corvus brachyrhynchos*	Game Species
American Kestrel	*Falco sparverius*	Protected
American Redstart	*Setophaga ruticilla*	Protected
American Robin	*Turdus migratorius*	Protected
Baltimore Oriole	*Icterus galbula*	Protected
Bank Swallow	*Riparia riparia*	Protected
Barn Swallow	*Hirundo rustica*	Protected
Black-capped Chickadee	*Poecile atricapillus*	Protected
Black-throated Green Warbler	*Dendroica virens*	Protected
Blue Jay	*Cyanocitta cristata*	Protected
Blue-winged Warbler	*Vermivora pinus*	Protected
Bobolink	*Dolichonyx oryzivorus*	Protected
Brown-headed Cowbird	*Molothrus ater*	Protected
Canada Goose	*Branta canadensis*	Game Species
Chestnut-sided Warbler	*Dendroica pensylvanica*	Protected
Chipping Sparrow	*Spizella passerina*	Protected
Common Grackle	*Quiscalus quiscula*	Protected

Common Raven	*Corvus corax*	Protected
Common Yellowthroat	*Geothlypis trichas*	Protected
Downy Woodpecker	*Picoides pubescens*	Protected
Eastern Bluebird	*Sialia sialis*	Protected
Eastern Kingbird	*Tyrannus tyrannus*	Protected
Eastern Phoebe	*Sayornis phoebe*	Protected
European Starling	*Sturnus vulgaris*	Unprotected
Gray Catbird	*Dumetella carolinensis*	Protected
Great Crested Flycatcher	*Myiarchus crinitus*	Protected
Hairy Woodpecker	*Picoides villosus*	Protected
House Wren	*Troglodytes aedon*	Protected
House Sparrow	*Passer domesticus*	Unprotected
Killdeer	*Charadrius vociferus*	Protected
Mallard	*Anas platyrhynchos*	Game Species
Mourning Dove	*Zenaida macroura*	Protected
Northern Flicker	*Colaptes auratus*	Protected
Northern Goshawk	*Accipiter gentilis*	Prot-Special Concern
Pileated Woodpecker	*Dryocopus pileatus*	Protected
Red-winged Blackbird	*Agelaius phoeniceus*	Protected
Rock Pigeon	*Columba livia*	Unprotected
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	Protected
Ruffed Grouse	*Bonasa umbellus*	Game Species
Song Sparrow	*Melospiza melodia*	Protected
Tree Swallow	*Tachycineta bicolor*	Protected
White-breasted Nuthatch	*Sitta carolinensis*	Protected
Wild Turkey	*Meleagris gallopavo*	Game Species
Wilson's Snipe	*Gallinago delicata*	Game Species
Wood Duck	*Aix sponsa*	Game Species
Yellow Warbler	*Dendroica petechia*	Protected
Yellow-bellied Sapsucker	*Sphyrapicus varius*	Protected

Probable Species of Breeding Birds On or Within the Vicinity of the Unit

Common Name	**Scientific Name**	**NY Legal Status**
American Goldfinch	*Spinus tristis*	Protected
Blackburnian Warbler	*Dendroica fusca*	Protected
Brown Creeper	*Certhia americana*	Protected
Cedar Waxwing	*Bombycilla cedrorum*	Protected
Eastern Wood-Pewee	*Contopus virens*	Protected
Great Horned Owl	*Bubo virginianus*	Protected
Louisiana Waterthrush	*Seiurus motacilla*	Protected
Mute Swan	*Cygnus olor*	Protected
Northern Waterthrush	*Seiurus noveboracensis*	Protected
Ovenbird	*Seiurus aurocapilla*	Protected
Pine Siskin	*Spinus pinus*	Protected
Red Crossbill	*Loxia curvirostra*	Protected

Ruby-throated Hummingbird	*Archilochus colubris*	Protected
Savannah Sparrow	*Passerculus sandwichensis*	Protected
Scarlet Tanager	*Piranga olivacea*	Protected
Veery	*Catharus fuscescens*	Protected
Winter Wren	*Troglodytes troglodytes*	Protected
Yellow-rumped Warbler	*Dendroica coronata*	Protected

Possible Species of Breeding Birds On or Within the Vicinity of the Unit

Common Name	**Scientific Name**	**NY Legal Status**
Alder Flycatcher	*Empidonax alnorum*	Protected
American Black Duck	*Anas rubripes*	Game Species
American Woodcock	*Scolopax minor*	Game Species
Barred Owl	*Strix varia*	Protected
Belted Kingfisher	*Megaceryle alcyon*	Protected
Black-and-white Warbler	*Mniotilta varia*	Protected
Black-billed Cuckoo	*Coccyzus erythropthalmus*	Protected
Black-throated Blue Warbler	*Dendroica caerulescens*	Protected
Blue-headed Vireo	*Vireo solitarius*	Protected
Broad-winged Hawk	*Buteo platypterus*	Protected
Brown Thrasher	*Toxostoma rufum*	Protected
Canada Warbler	*Wilsonia canadensis*	Protected
Carolina Wren	*Thryothorus ludovicianus*	Protected
Chimney Swift	*Chaetura pelagica*	Protected
Common Merganser	*Mergus merganser*	Game Species
Cooper's Hawk	*Accipiter cooperii*	Prot-Special Concern
Dark-eyed Junco	*Junco hyemalis*	Protected
Eastern Meadowlark	*Sturnella magna*	Protected
Eastern Screech-Owl	*Megascops asio*	Protected
Eastern Towhee	*Pipilo erythrophthalmus*	Protected
Field Sparrow	*Spizella pusilla*	Protected
Golden Eagle	*Aquila chrysaetos*	Endangered
Golden-crowned Kinglet	*Regulus satrapa*	Protected
Great Blue Heron	*Ardea herodias*	Protected
Green Heron	*Butorides virescens*	Protected
Hermit Thrush	*Catharus guttatus*	Protected
Hooded Merganser	*Lophodytes cucullatus*	Game Species
Hooded Warbler	*Wilsonia citrina*	Protected
House Finch	*Carpodacus mexicanus*	Protected
Indigo Bunting	*Passerina cyanea*	Protected
Least Flycatcher	*Empidonax minimus*	Protected
Magnolia Warbler	*Dendroica magnolia*	Protected
Marsh Wren	*Cistothorus palustris*	Protected
Mourning Warbler	*Oporornis philadelphia*	Protected
Nashville Warbler	*Vermivora ruficapilla*	Protected
Northern Cardinal	*Cardinalis cardinalis*	Protected

Northern Harrier	*Circus cyaneus*	Threatened
Northern Mockingbird	*Mimus polyglottos*	Protected
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	Protected
Purple Finch	*Carpodacus purpureus*	Protected
Red-bellied Woodpecker	*Melanerpes carolinus*	Protected
Red-breasted Nuthatch	*Sitta canadensis*	Protected
Red-eyed Vireo	*Vireo olivaceus*	Protected
Red-shouldered Hawk	*Buteo lineatus*	Prot-Special Concern
Red-tailed Hawk	*Buteo jamaicensis*	Protected
Ring-necked Pheasant	*Phasianus colchicus*	Game Species
Sharp-shinned Hawk	*Accipiter striatus*	Prot-Special Concern
Spotted Sandpiper	*Actitis macularius*	Protected
Swamp Sparrow	*Melospiza georgiana*	Protected
Tufted Titmouse	*Baeolophus bicolor*	Protected
Turkey Vulture	*Cathartes aura*	Protected
Vesper Sparrow	*Pooecetes gramineus*	Prot-Special Concern
Warbling Vireo	*Vireo gilvus*	Protected
White-throated Sparrow	*Zonotrichia albicollis*	Protected
White-winged Crossbill	*Loxia leucoptera*	Protected
Willow Flycatcher	*Empidonax traillii*	Protected
Wood Thrush	*Hylocichla mustelina*	Protected
Yellow-billed Cuckoo	*Coccyzus americanus*	Protected
Yellow-throated Vireo	*Vireo flavifrons*	Protected

APPENDIX IV Reptiles & Amphibians

Species of Amphibians and Reptiles In the Vicinity of the Brookfield Management Unit. New York State Amphibian and Reptile Atlas Data 1990-1999.

Amphibian & Reptile Species On or Within the Vicinity of the Unit

Common Name	**Scientific Name**	**NY Legal Status**
Bullfrog	*Rana catesbeiana*	Game Species
Gray Treefrog	*Hyla versicolor*	Unprotected
Green Frog	*Rana clamitans melanota*	Game Species
Northern Leopard Frog	*Rana pipiens*	Game Species
Northern Spring Peeper	*Pseudacris crucifer*	Unprotected
Pickerel Frog	*Rana palustris*	Game Species
Wood Frog	*Rana sylvatica*	Game Species
Eastern American Toad	*Bufo americanus*	Unprotected
Common Snapping Turtle	*Chlydra serpentina*	Game Species
Eastern Redbelly Turtle	*Pseudemys rubriventris*	Unprotected
Painted Turtle	*Chrysemys picta*	Unprotected
Wood Turtle	*Clemmys insculpta*	Game Spec-S Concern*
Allegheny Mountain Dusky Salamander	*Desmognathus ochrophaes*	Unprotected
Northern Dusky Salamander	*Desmognathus fuscus*	Unprotected
Northern Redback Salamander	*Plethodon cinereus*	Unprotected

Northern Spring Salamander	*Gyrinophilus porphyriticus*	Unprotected
Northern Two-lined Salamander	*Eurycea bislineata*	Unprotected
Red-spotted Newt	*Notophthalmus viridescens*	Unprotected
Spotted Salamander	*Ambystoma maculatum*	Unprotected
Common Garter Snake	*Thamnophis sirtalis*	Unprotected
Eastern Milk Snake	*Lampropeltis Triangulum*	Unprotected
Northern Brown Snake	*Storeria dekayi*	Unprotected
Northern Redbelly Snake	*Storeria* occiptomaculata	Unprotected
Northern Ringneck Snake	*Diadophis punctatus*	Unprotected
Northern Water Snake	*Nerodia sipedon*	Unprotected

* The Wood Turtle has been protected since 1905 by listing it as a game species with no open season.

APPENDIX V Mammals On or in the Vicinity of the Brookfield Unit

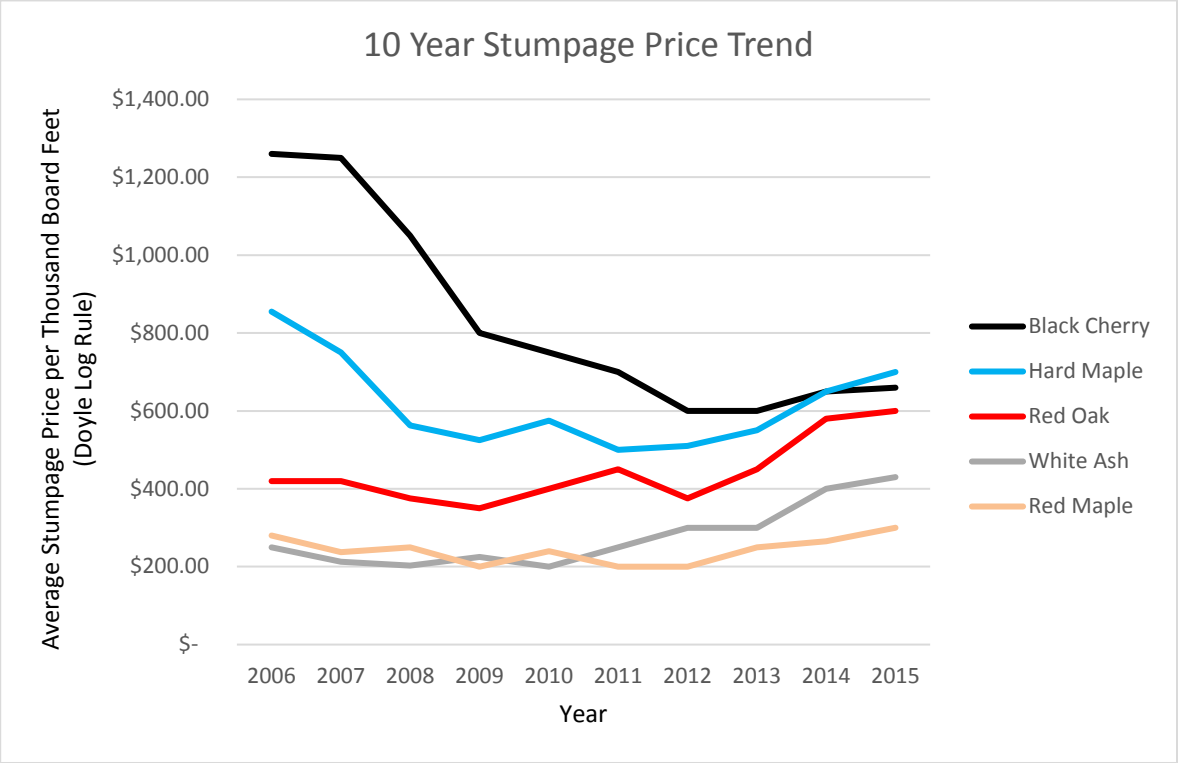
Common Name	**Scientific Name**	**Confirmed/ Predicted**	**Protective Status**	
			Federal	State
American Beaver	*Castor canadensis*	C	UN	GS
Big Brown Bat	*Eptesicus fuscus*	C	UN	UN
Black Bear	*Ursus americanus*	P	UN	GS
Bobcat	*Lynx rufus*	C	UN	GS
Common Muskrat	*Ondatra zibethicus*	C	UN	GS
Common Raccoon	*Procyon lotor*	P	UN	GS
Coyote	*Canis latrans*	C	UN	GS
Deer Mouse	*Peromyscus maniculatus*	C	UN	UN
Eastern Small-footed Bat	*Myotis leibii*	P	UN	UN
Eastern Chipmunk	*Tamias striatus*	C	UN	UN
Eastern Cottontail	*Sylvilagus floridanus*	P	UN	GS
Eastern Gray Squirrel	*Sciurus carolinensis*	C	UN	GS
Eastern Pipistrelle	*Pipistrellus subflavus*	P	UN	UN
Eastern Red Bat	*Lasiurus borealis*	P	UN	UN
Fisher	*Martes pennanti*	P	UN	GS
Gray Fox	*Urocyon cinereoargentus*	C	UN	GS
Hairy-tailed Mole	*Parascalops breweri*	C	UN	UN
Hoary Bat	*Lasiurus cinereus*	C	UN	UN
House Mouse	*Mus musculus*	C	UN	UN
Indiana Bat	*Myotis sodalis*	P	E	E
Least Shrew	*Cryptotis parva*	P	UN	UN
Little Brown Bat	*Myotis lucifugus*	C	UN	UN
Long-tailed Weasel	*Mustela frenata*	P	UN	GS
Masked Shrew	*Sorex cinereus*	C	UN	UN
Meadow Jumping Mouse	*Zapus hudsonius*	C	UN	UN

Common Name	Scientific Name	Confirmed/ Predicted	Protective Status	
			Federal	State
Meadow Vole	*Microtus pennsylvanicus*	C	UN	UN
Mink	*Mustela vison*	P	UN	GS
Northern Short-tailed Shrew	*Blarina brevicauda*	C	UN	UN
Northern Flying Squirrel	*Glaucomys sabrinus*	C	UN	UN
Northern long-eared bat	*Myotis septentrionalis*	C	UN	UN
Norway Rat	*Rattus norvegicus*	P	UN	UN
Porcupine	*Erethizon dorsatum*	P	UN	UN
Pygmy Shrew	*Sorex hoyi*	C	UN	UN
Red Fox	*Vulpes vulpes*	C	UN	GS
Red Squirrel	*Tamiasciurus hudsonicus*	P	UN	UN
River Otter	*Lutra canadensis*	C	UN	GS
Short-tailed Weasel (Ermine)	*Mustela erminea*	C	UN	UN
Silver-haired Bat	*Lasionycteris noctivagans*	P	UN	UN
Smoky Shrew	*Sorex fumeus*	C	UN	UN
Snowshoe Hare	*Lepus americanus*	P	UN	GS
Southern Bog Lemming	*Synaptomys cooperi*	C	UN	UN
Southern Flying Squirrel	*Glaucomys volans*	C	UN	UN
Southern Red-backed Vole	*Clethrionomys gapperi*	C	UN	UN
Star-nosed Mole	*Condylura cristata*	C	UN	UN
Striped Skunk	*Mephitis mephitis*	P	UN	GS
Virginia Opossum	*Didelphis virginiana*	P	UN	GS
White-footed Mouse	*Peromyscus leucopus*	C	UN	UN
White-tailed Deer	*Odocoileus virginianus*	C	UN	GS
Woodchuck	*Marmota monax*	P	UN	UN
Woodland Jumping Mouse	*Napaeozapus insignis*	C	UN	UN
Woodland Vole	*Microtus pinetorum*	C	UN	UN

Source: Adapted from The New York Gap Program, U.S. EPA EMAP Hexagons 348, 377 and 381.

Appendix VI Ten Year Stumpage Price Trends

Source: NYS DEC Stumpage Price Reports



APPENDIX VII Property Taxes

2011 Taxes Paid to Towns, on Forests in the Brookfield Unit

State Forest	County	Town	Acres	Assessment	Taxes Paid	
					Town	School
Mad #1	Chenango	Columbus	953.67	2,723,100	1,541	39,680
Mad #1	Chenango	Columbus	1.32	-	Exempt	Exempt
Mad #1	Chenango	Sherburne	122.58	54,500	Exempt	Exempt
Mad #1	Madison	Hamilton	279.81	367,200	3,145	6,244
Mad #1	Madison	Brookfield	6,144.03	15,695,400	117,968	206,984
Mad #1	Madison	Brookfield	410.44	-	Exempt	Exempt
Mad #4	Madison	Brookfield	860.52	2,468,900	18,556	30,606
Mad #4	Madison	Brookfield	128.76	-	Exempt	Exempt
Mad #6	Madison	Brookfield	744.61	2,592,900	19,488	35,110
Mad #6	Madison	Brookfield	81.11	-	Exempt	Exempt
Mad #11	Madison	Brookfield	480.78	1,202,900	9,041	16,288
Mad #11	Madison	Brookfield	47.93	-	Exempt	Exempt
Mad #12	Oneida	Bridgewater	179.79	192,000	2,035	2,600
Mad #12	Madison	Brookfield	1287.09	1,462,400	9,814	6,777
Mad #12	Madison	Brookfield	1380.47	-	Exempt	Exempt
				Total	$181,188	$400,289

APPENDIX VIII Department Laws, Rules, Regulations and Policies

A. Environmental Conservation Laws

ECL Article 8	Environmental Quality Review
ECL Article 9	Lands and Forests
ECL Article 11	Fish and Wildlife
ECL Article 15	Water Resources
ECL Article 23	Mineral Resources
ECL Article 24	Freshwater Wetlands
ECL Article 33	Pesticides
ECL Article 51	Implementation of Environmental Quality Bond Act/1972
ECL Article 52	Implementation of Environmental Quality Bond Act/1972

B. Rules & Regulations Pertaining to New York State Public Lands

Title 6 of *the New York Code of Rules and Regulations* - Part 190 - Use of State Forests

Section 190.1 - Fire - no fires permitted except for cooking, warmth, or smudge. Also specifies depositing matches, etc. and using live trees for fuel prohibited.

Section 190.2 - Signs and structures - no person shall deface, mutilate or destroy, etc. This section also includes the prohibition of placing trash, garbage, etc.

Section 190.3 - Camping sites - sites must be kept neat, 150 feet from trail, road, stream, pond, spring, etc. and includes emergency closure times and elevation restrictions.

Section 190.4 - Camping permits - camping at one site for four nights or more without a permit is prohibited, length of stay specified, camping restricted to posted areas, group size specified and age of permittee.

Section 190.5 - Permissible structures - no permanent structures allowed, no transfer of existing structures, listing of reasons for cancellation of existing permits for lean-to (open camps).

Section 190.6 - Open camps - specifies number of days a lean-to may be occupied, what constitutes an enclosure, etc.

Section 190.7 - Public campgrounds - Lists of additional public use requirements when a public campground exists on state land.

Section 190.8 - General - a long list of prohibitions for the public use of State lands including gambling, use of snowmobiles, toboggans and sleds on ski trails, sale of alcohol, speed limit on truck trails, deface, remove, destroy vegetation without a permit, etc. This section allows the use of horses except on intensively developed facilities (listed). This section was updated in 2009 with many new provisions pertaining to recreational trails, use of motor boats, harvesting of berries, etc.

Section 190.9 - Use of pesticides on State lands - none allowed except by written permission.

Section 190.10 - Unique Areas - special regulations listed by area.

Section 190.11 - Environmentally sensitive lands - lists the sections above that apply to people using sensitive lands (Sections 190.0 - 190.9) seems redundant.

Section 190.12 - Conservation Easements - Applies to all easement lands that the public has a right to access. Goes on to list general prohibitions on use, then lists areas under easements.

Section 190.13 - 190.22 - Repealed or not in use.

Section 190.23 - Specific Areas - List of Ski Centers: Belleayre, Gore and Whiteface.

Section 190.24 - Boat launch sites - specific rules of public use of launch sites.

Section 190.25 - 190.33 - Regulations for specific areas such as Zoar Valley, Lake George, the Olympic Area, etc.

C. State Forest Camping Regulations

1. Campsites must be kept clean. These are "carry-in -carry-out" areas.
2. Camping is prohibited within 150' of any road, trail, stream, or body of water, except where sites have been designated by the Department.
3. Camping is allowed for up to 3 nights without a permit. Campers occupying a site for more than 3 nights are required to obtain a written permit from the Sherburne DEC office. There is currently no fee for the permit.
4. Permits will be issued for a maximum of 10 days. A permit will not be renewed to the same person for the same site during the same calendar year.
5. Groups of 10 or more persons are required to obtain a camping permit for any length of stay.
6. Camping is prohibited in any area that is posted against camping.
7. All camping equipment and supplies must be removed from State land when the users have completed their stay.
8. No permits will be issued to persons under 18 years of age.
9. Campers are required to obtain a permit for any length of stay in a Wildlife Management Area. These permits are available from the Cortland DEC office.
10. Campers may use tents or trailers, but no permanent structures, such as tent platforms or lean-tos, may be constructed for camping.
11. Lean-tos that are provided by the DEC may not be occupied for more than 3 successive nights or for more than 10 nights in any one calendar year, if others wish to use the site.
12. Only dead and down wood may be used for campfires. Fires must be extinguished when the site if not occupied.
13. There is no fee for camping on State Forests.

D. Department Policies

Unit Management Planning	Prescribed Fire	Pesticides
Motor Vehicle use	Inventory	Recreational Use
Timber Management	Acquisition	Public Use

Temporary Revocable Permits	Road Construction	~~State Forest Master Plan~~Strategic Plan for State Forest Management
Plantation Management	Retention	Clearcutting

Appendix IX SEQR Considerations

The State Environmental Quality Review Act (SEQRA) requires the consideration of environmental factors for proposed action(s) that are undertaken, funded or approved by a local, regional or State agency. The New York State Strategic Plan for State Forest Management/Generic Environmental Impact Statement has been developed and addresses actions in this Unit Management Plan in compliance with SEQRA.

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.

APPENDIX X

PUBLIC COMMENTS

Many comments on the plan were received during the April 7, 2016 public meeting or from written and e-mail responses that followed. Notice was posted in the Environmental Notice Bulletin (ENB) and comments accepted until June 7, 2016. The essential comment (C:) is listed below with the staff response **(R:)** following in **bold** text.

C: We appreciate being able to do the various activities on the Brookfield Trail System. Some suggestions that I have are as follows: Post signs that can't be easily removed in the following locations: Moscow Hill Assembly & Campsites that state camping is permitted to anyone with or without a horse.

R: Signs for multiple use camping will be ordered and installed at the Moscow Hill camping areas.

C: The "Handicapped Parking" sign be re-installed at the Assembly Area and a small area near the pavilion be designated for "Day Use Parking Only". There are people with many diverse interest & abilities who wish to use that area. Said area near the pavilion should not be used to park livestock conveyances, campers, etc. and should at least remain accessible to handicapped individuals who wish to use the pavilion/picnic area.

R: Handicap Parking sign will be re-installed as originally was in front of pavilion. Parking area to be better defined so that camping rigs or trailers do not block access to pavilion use.

C: Cherry Ridge - post signs stating that horses are not permitted at that location. Last summer we saw horses and large trailers parked very close to the well.

R: Signage for "No horse camping" at Cherry Ridge Campground have been re-installed by the Department.

C: Upgrade deteriorated sections of horse trails at southern end of trail system, specifically trail 31 and 32. Additional trail work for stone and fabric is also needed on Beaver Creek State Forest along with brush clearing. Regrade "Murphy road" on Beaver Creek State Forest and retab roadway for safer use of abandoned road. (Comments submitted by letter dated April 7, 2016)

R: Trail system is continually monitored by the Department for environmental impact issues and addressed accordingly when DEC staff and funding sources exist. Trails 31 and 32 improvements had started in 2016 and will continue in accordance with the Departments annual work plans. West end of trail 42, also known as "Murphy Rd", will be upgraded in conjunction with the harvesting of forest products in and around that abandoned roadway.

C: Letter received at public meeting, 4-17-16. NYS Horse Council-Executive VP, Jeannette Dietrich: thanking DEC for the many years of public service and keeping the trail system open and maintained for public use. Acknowledgement of the Horse Council's long standing pleasure and competitive trail riding events held in Brookfield. Personal offering on behalf of the Horse Council to help DEC in any ways possible to keep equestrians in the future Brookfield UMP planning processes.

R: The Department recognizes the long standing relationship with the New York State Horse Council and the support this organization has provided over the many years the trail system has been in operation. DEC is thankful for such a cooperative partnership with this user group.

C: Primarily interested in horseback riding. I love the trails and have come to appreciate the work that goes into managing them. I value the land and forests, the wildlife habitat and roadways. Thank you for your work

R: You're welcome.

C: You answered several of my questions before I asked them. Thank you for all your efforts to keep this area open for recreation. Page 100 item #10 - Reword just in case there is ever enforcement. Washing of horses cannot be done w/in XX feet of the water pumps. No hoses can be connected to the water pumps. Just to clarify it because we have to wash the horses. We use buckets or hoses connected to our own pumps and water tanks.

R: Since washing of horses is not a current issue or problem at the Moscow Hill Camping or Assembly Areas, the Department is eliminating this rule from the proposed regulations for the new part 190.36 of the Environmental Conservation law. Item 10, under section C of the proposed rules will be eliminated.

C: With the camping rules - How can you enforce? If you're going to enforce we need to be able to camp for more than 14 days in a given season.

R: Camping regulations have always been enforced as best as can be expected. The camping permit regulations restricting to no more than 14 consecutive nights in any one location per person in any given calendar year is a statewide regulation designed to provide equal opportunity for free camping on public lands. DEC administers 5 million acres of public lands in New York State, several areas of which provide opportunities for horseback riding. Ample opportunities for camping exist.

C: Concerned about individuals crossing the state land onto my property. Would like to get maps of the state forests especially Brookfield Railroad State Forest.

R: All State forest boundaries are clearly marked with painted yellow blazes on trees and posted with State Forest signage. Detailed State Forest Maps for this and other State Forests are available on line from the Department's website at http://www.dec.ny.gov/lands/34531.html.

C: The DEC should refrain from drilling on our state land. The land should be for enjoyment of nature. We love it for horseback riding & hiking.

R: In December 2014 the Governor and the Commissioners of the Department of Health (DOH) and DEC announced that the DOH had completed its public health review of NYS DEC's SGEIS on the Oil, Gas and Solution Mining Regulatory Program and recommended that high-volume hydraulic fracturing should not move forward in New York State. However other forms of drilling do not use high-volume hydraulic fracturing.

As of 2016, there are no oil and gas lease agreements pertaining to the mineral estate under the State Forests contained in this plan. In the future, the State may receive requests to nominate some or all of the tracts contained in this Unit for oil and gas leasing. Additional information on oil and gas leasing procedures can be found in Chapter 5 of the Strategic Plan for State Forest Management, which can be found online at http://www.dec.ny.gov/docs/lands_forests_pdf/spsfmfinal.pdf.

Should any portion, or all of the unit be nominated for oil and gas exploration, development and extraction, this will trigger a new public process before final decisions are made with respect to the proposal(s). The Department will conduct a tract assessment of the Unit, and hold a public meeting to receive comments in regard to the proposal(s). A 30 day public comment period would then follow the public meeting. The Department will consider all comments and the tract assessment prior to making a decision.

C: Where is aerial spraying addressed and how will we be notified? Mark private property lines better.

C: Aerial spraying not mentioned in the draft plan.

R: Aerial spraying of the forest cover is not addressed in the UMP. It is the Departments current stance that aerial spraying for any insect or disease control is too cost prohibitive for the agency. On the ground herbicide spraying is addressed and is on a stand by stand basis or case by case consideration when chosen as a management option. It is not always the first option to use either. Any adjacent landowners can be contacted prior to any spraying operations as to the timing and extent of the proposed herbicide applications.

C: Plans to install eagle nesting sites or platforms?

R: At this time, no nesting platforms are proposed for nesting eagles or Ospreys. The large wetland complex on Beaver Creek State Forest would be the best choice for such an addition.

C: Old road (original trail # 1) could be opened as a carriage trail with water bars designed by Madison County Soil and Water District.

R: The current carriage trail (trail # 30) has been designed to support heavy use and is well maintained. There are no plans to re-open the old town road after more than 20 years of natural restoration of the eroded roadbed and new forest growth. More efforts will be made towards upgrading trail 30 to accommodate all user needs including grooming by the snowmobile clubs.

C: I applaud your allocation of 113 acres of open space especially for grasslands. We have plenty of trees. We need more seldom mowed fields, particularly for bobolinks, meadowlarks and ground-nesting sparrows. We need more clear-cutting and old growth. I favor about 15% of each, with the remaining 70% as sustainable timber.

R: The Ump has scheduled approximately 1,700 acres of existing conifer plantations to be converted to early successional forest over the 20 year cutting cycle of this plan. That equates to approximately 12% of the units acreage that will be converted to early successional forest in the near future. Currently 70% of the Unit's acreage is being managed for sustainable production of timber. The Brookfield Unit has 28% of the land base in either protection status or natural area with little to no tree cutting outside of necessary access or maintenance needs. The remaining 2% of land base is in roads, shale pits or old field conditions.

C: Please leave Cherry Ridge camping area as primitive as possible. Some of us prefer a back country camping experience. The addition of comforts degrades it.

R: The Unit management plan does not propose any new upgrades or added amenities to Cherry Ridge Campground with the exception of proposing the rental of portable restroom facilities on a seasonal basis, similar to what is available at Moscow Hill campgrounds.

C: I have enjoyed Brookfield my whole life. Now I watch my children enjoy it. I hope some of the trees take off and the money that is made is put back into the state land to keep it open for all to enjoy.

C: Does timber sale revenue become available for improvements to the forest?

R: Timber sale revenues are not specifically dedicated to work on the property where each sale occurs, but all revenue from State Forest timber sales is deposited into the Natural Resource Account. This account pays for staff salaries, as well as supplies, materials, equipment and travel associated with managing State Forests.

C: Have the shale pits been tested for lead contamination? For decades thousands and thousands of target practice has occurred in the shale pits. Although not all shot was lead, much of it was. This could be a point source of lead contamination. Taking it a step further, if the pits have high lead levels then all the surfaced truck trails could as well thus creating a line source of lead contamination.

R: The quarry(s) have not been tested. Target shooting is considered an informal use, therefore by regulatory definition, the lead deposited by this activity isn't hazardous waste disposal. The Department believes there is a low potential for lead exposure in the quarry. The quarry is not regulated as a mine, since less than 1,000 tons of material are removed per year. While shale pits on State Lands are often used for target shooting, the lead bullets have not been considered an environmental hazard because there is no human exposure to the lead fragments. Resurfacing of the truck trails was done from fresh shale dug adjacent to the exposed target shooting area of the shale pit. If the truck trails were tested for lead, the probability of finding lead fragments would be extremely rare. Therefore, at this time, there are no plans to test or remove lead from the shale pits or truck trails.

C: It is our request that the two separate "carriage trail bridges" along trail # 30 on the Charles E. Baker State Forest be replaced and widened to a minimum of ten feet width to accommodate the club's grooming machine.

C: The main two bridges on the Carriage Trail (trail # 30) should be a priority for rehabilitation.

C: Inspect bridges leaving Assembly Area for Safety (two Carriage trail bridges). Draft horses and carriages up to 4,000 pound load each set up on the bridge.

R: Due to the age, deterioration and narrow width of the two 20 foot long wooden carriage trail bridges along trail # 30, the Department will plan on replacing these structures with a wider crossing on newly designed wooden structures or appropriate culvert replacements at the first opportunity that funding and manpower can accommodate. Plans are underway to replace the bridges in question.

C: Additional comment received by e-mail: restore the trail system to its original 130 mile system with the addition of trails to bring the total mileage back to 130 miles.

C: Is the actual trail mileage 99 miles or 130 miles?

R: The DEC has no plans to expand the trail system. The current trail system already consumes a large portion of available resources for the recreation maintenance needs of all State Lands in the Sherburne DEC–Region 7 work zone. The individual trails are being digitally measured/recorded during the summer of 2016 and to continue in 2017 by members of the New York State Excelsior Corps. Total trail length will then be updated accordingly. Current Department records show 59 miles of off-road trails and another 30 miles of Town roads and Truck Trails listed for the Brookfield Trail System. The original 130 miles included sections of duplicated trails based on the option to ride three separate, distinct trail routes that originated from a central starting point. Actual trail mileage has changed from then due to trail closures and various trail reroutes over the years.

C: More DEC law enforcement staff or more support from local enforcement agencies. More efforts to police and monitor the continual 4 wheelers abusing the trail system illegally, through possible state mandates for registrations, addition DEC enforcement.

R: A vacancy for the area was recently backfilled. Forest Rangers have continued to respond to ATV complaints and actively patrol for public and resource protection on the property and will continue. Staffing increases within the 9 county region continue to be requested to aid in addressing this and multiple other demands and requests for Forest Ranger services.

C: Request to rehabilitate the Lost Pond dam.

R: Both Woodland Pond and Lost Pond dikes on Charles E. Baker State Forest are in need of inspection and potential repairs or replacement. This need will be identified in the plan as a new objective under management goal # 2: Protect and maintain State Forest Assets and Visual Resources of the Unit.

C: Will oil & gas exploration or pipeline corridors be considered in this UMP?

R: Consideration of these issues is a separate process from the UMP. It will be determined by the Governor's office. See Goal 4, obj. 4.3, p. 106

C: The Town of Brookfield would like to reference the Brookfield UMP in their Comprehensive Plan.

R: The Town of Brookfield will be notified once the plan has been formally approved by the DEC Commissioner. This will take place after all public comments have been addressed and review from Albany is completed.

C: DEC needs to police the illegal use of ATVs in Brookfield.

R: Forest Rangers are charged with the patrol and enforcement of laws and regulations on DEC's public lands. Forest Rangers respond to ATV complaints, actively patrol for public safety and resource protection on the property and will continue to do so. Please report any illegal activity to the DEC's law enforcement dispatch number (518-408-5850).

C: DEC needs to curtail the number of parties and underage drinking events on Brookfield forests.

R: Remote, late night, large group events continue to be a challenge for Forest Rangers to address. Changes were made to DEC State Forest land use regulations which make the possession or consumption of alcohol by persons under the age of 21 on state lands illegal, as well as, a requirement for any organized event of 20 persons or more requiring a permit. These changes have helped Rangers to better address some of these issues. Proactive late night patrols to detect and eliminate these incidents will continue.

C: Question on natural regeneration vs artificial/planting.

R: L&F manages primarily for natural regeneration. Trees may be planted in areas where natural regeneration is lacking or where it is desired to increase species diversity. Planting of oaks and hickories has been added into the UMP objectives on select softwood conversion sites to increase species diversity and provide mast crop for various wildlife species.

C: L&F staff need to identify black bear dens prior to timber sales.

R: At this time no known bear dens have been found or reported on the Unit. If any bear dens are identified, DEC staff will take proper management efforts to protect and preserve these sites on a case by case basis.

C: There is a concern regarding the safety/ structural integrity of the horse trail bridges in Brookfield.

R: The UMP has proposed replacing the oldest and most worn bridges or boardwalks on a regular basis each field season as needed.

C: A 10 year period (UMP update interval) is too long to expect no necessary changes. Can changes be made during the 10 year period?

R: UMPs (Unit Management Plans) are working plans to guide management of State Forests. Minor amendments to the plan can be made as needed. Any major changes will require a new public input process.

C: L&F should post notification signs around the perimeter of herbicide treated areas.

R: This is a requirement that the herbicide contractor is directly responsible for. DEC does require each active herbicide applicator to have notices posted when herbicides are being applied. These are done at entry points used by the applicator or intersecting trail heads or along adjacent roadways.

C: Mountain biking text, change to biking only.

C: Fat tire mountain bikes are different than traditional mountain bikes, specify as such in text.

R: Mountain biking for the purpose of this document best describes the use of cycling off road or on the trails and associated truck trails and seasonal town roads. Fat tire mountain bikes for the purpose of this plan are considered a modified version of mountain bike and will fall under the same seasonal trail restrictions as presented in the UMP. See glossary for further definition.

C: No bicycles in the off season.

R: Mountain biking is prohibited on the trail system the same as horses are, on all of-road trails from November 1st through May 1st of each year. Use of the actual truck trails by either horses or mountain bikes outside of snow cover during the closed off–road trail riding season is allowed.

C: Two picnic tables to be donated by Horse Club for installation at woodland pond.

R: Thank you Eastern Competitive Trail Ride Association through Dan Gruen.

C: Insufficient DEC staffing.

C: How can we citizens persuade the state legislature to increase DEC staffing instead of cutting it?

R: Staffing needs for DEC is capped at a given level according to the Governors' goal that has been set for each State Agency.

C: Trails 31 and 32, Murphy road, and rest of the Beaver Creek State Forest trails all need improvement.

R: Trail conditions are continually monitored by DEC staff and other user groups who report problems in the trail registers on the trail system. DEC makes a diligent effort to prioritize the trail issues and work with interested user groups to remedy the trail issues as time, money and manpower exist.

C: Some of trails need more trail markers.

C: Provide trail markers to volunteers.

R: Routine trail maintenance and inspection reveal the areas lacking appropriate trail markers. Additional markers can be installed to better identify the designated trail routes. Trail markers may disappear over time due to age or theft. Please notify the DEC of specific trails where markers are missing. Any group that has an ongoing VSA (Volunteer Stewardship Agreement) with the Department can help tab the trails if deemed necessary by Lands & Forest as part of their agreement.

C: History and Demographic section of plan should include more towns than just Brookfield.

R: The Town of Brookfield makes up the majority of the actual UMP State land acreage and has had the most influence on the current State lands within the plan. Other townships including the towns of Bridgewater, Columbus, Sherburne and Hamilton only include minor areas of State land in the Unit. No additional history information is planned to be added to the UMP.

C: Continue with partnerships like NYS Planation Walking Horse Club and NYS Horse Council, good relationships.

R: As identified in the plan: Action 3.1.6 states-Continue partnering with the various organized user groups including the New York State Horse Council, Plantation Walking Horse Club and both the Sherburne Area and Central New York Snowmobile Associations to help maintain the Brookfield Trail System through their respective Volunteer Stewardship Agreements (VSAs).

C: Possibly contact trails magazine to list Brookfield as an equestrian riding destination.

R: Two recent publicized articles on the Brookfield Trail System have enlightened the public to the facilities and trail experiences available on these state lands. One article in the NYS Conservationist from June 2016 and another in the New York Horse magazine, CNY edition, summer 2015 have been published.

C: Get logging trucks to slow down on truck trails and local town roads through State lands.

R: All public forest access roads (Truck Trails) are posted with a maximum speed limit of 25 miles per hour. All vehicles operating on these roads are subject to the posted speed limit.

C: Pesticides/herbicides-DEC post spraying schedules at Kiosks or on site.

R: For the times that herbicide spraying is to take place on the Unit, the Department can post notification at appropriate Kiosks or trail registers to inform the public.

C: Morrow Road listed as abandoned on maps but it has been repaired and rehabilitated.

R: Morrow Rd. is a qualified abandoned road with state ownership each side of it. Road improvements can be undertaken by the Department and have been recently done for better general and emergency access to this section of the State Forest. Road upgrades were to minimum standards.

C: pg. 33- additional species: add information on Black bear.

R: Although we could add a section on black bears, their contribution as a game animal is minimal within the unit. In fact, the harvest in all of WMU 7M is usually under 5 bears annually.

C: pg. 33-under furbearers- drop grey squirrel and add red squirrel, fisher, otter and bobcat.

R: Fisher has been added to the list of species present and open for trapping. Otter and bobcat, although present in the unit, are not open for trapping. Both squirrel species, red and gray, are most suitable listed as small game or unprotected wildlife in the case of red squirrel.

C: pg. 37-add bobcat, fisher, coyote and black bear to list of mammals using early successional habitat for food and cover.

R: Although the provided list is not intended to be all inclusive we have added bobcat, fisher, coyote and black bear to the list of mammals using this cover type.

C: pg. 37-add that beaver activity is part of a natural disturbance cycle under potential threats to significant ecological community.

R: Although beaver activity is part of the natural disturbance cycle it is nonetheless a threat as listed in this section. Flooding from beaver activity as a natural disturbance is noted on pg. 31 in the UMP.

C: pg. 45-Add Black bear as an additional species available to hunt.

R: Agreed. Black bear has been added to the list of species available to hunt in the unit.

C: pg. 45-add wildlife observation to title for 5. Hunting and Trapping paragraph along with information on funding sources that have been set up to benefit all recreational users under wildlife and restoration funds.

R: We feel that this item is adequately covered under #7 Hiking, Wildlife and Nature observation as these are non-consumptive uses and best lumped together.

C: pg. 54-Forest Health -additional note that deer hunting is also a necessary management tool and Lands & Forest can utilize DMAPs where & when necessary.

R: The Department agrees that deer hunting is a management tool and DMAPs (Deer Management Assistance Program) can be issued and utilized when applicable. This information is already stated in the hunting and trapping information under the recreational resources section of the plan.

C: pg. 67-mention ginseng as a non-timber forest product**.**

R: Ginseng is a regulated forest product that can be harvested off private lands according to the specifications issued under OFFICIAL COMPILATION OF CODES, RULES AND REGULATIONS OF THE STATE OF NEW YORK TITLE 6. DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHAPTER II. LANDS AND FORESTS, PART 193. TREES AND PLANTS but harvesting of ginseng is not allowed on State Lands. As further defined by 6 CRR-NY 193.5, no ginseng may be harvested from lands administered by the Department of Environmental Conservation without a temporary revocable permit. Permits will only be issued for academic or scientific research.

C: pg. 69-Biological resources-remove the word “trophy deer", consider replacing with a healthy dynamic population of White-tail deer.

R: the non-commodity value of “Trophy deer” has been replaced with white tail deer, which reflects a broader aspect of this value that is not monetarily measured.

C: pg. 81-add to action 1.4- protection of known bear dens as a new objective in this section. This is in part being done through management of CWM. Known bear denning sites should be managed much like raptor nests are.

R: Bear dens, particularly ones that are made from CWM, are not typically re-used on an annual basis. By providing CWM, bears will have a source of materials to draw from each year. When an active den is found during management operations, precautions will be taken to avoid disturbance.

C: pg. 35-add Black bears to list of mammals using Course Woody Material for denning needs.

R: Black bears are currently listed in this section.

C: pg. 82-add to action 1.4.3- encourage use of recreational trappers to help alleviate nuisance beaver problems when they show up.

R: Although we agree that recreational trappers can and should be utilized to manage beaver issues, in many cases involving infrastructure the problem occurs outside the open trapping season and are therefore unavailable for use by the recreational trapping community.

C: pg. 96-reference to objective 3.1.2- periodic closing of trails from active timber sales. Are trails closed to beaver trappers at that time too, if coinciding with trapping seasons?

R: Trail closures for active timber sales are temporary in length and affect only the portion of trail that is either adjacent to or running within an active timber sale area. The trail itself as it passes through or next to the cutting area is off limits to the public while harvesting is underway. Use of the public lands outside the actual timber sale area is not restricted. Trails are normally closed from beginning to end due to the connectivity of that trail to other areas as to not inconvenience users halfway through an intended outing. Occasionally trails are posted with caution to alert users to harvesting activity nearby but not directly on the trail. These trails remain open for use under that posting.

C: pg. 96-action 3.1.4- replacing bridges with culverts- DEC needs to keep water connectivity for wildlife, no hanging culverts.

R: The Forestry division is aware of the importance of connectivity when it comes to waterways and drainage systems for wildlife, fish and amphibians. The Department will always try to install new culverts with the water connectivity in mind and not leave hanging culverts which can impede species mobility.

C: pg. 98-objective 3.2-consider that each 200 foot section of any new non-motorized trail developed equates to a loss of approximately one acre of trapping area, due to current trapping regulations.

R: Correct. One important distinction is the difference between a State Forest property and a Wildlife Management Area (WMA) as it relates to trapping; this regulation does not apply to a WMA. Body-gripping traps set on State Reforestation Areas or other lands shall not be within 100 feet of a public trail except on Wildlife Management Areas.

APPENDIX XI Maps of the Brookfield Unit

Land Cover within Three (3) Miles of the Brookfield Unit Management Area
Public Forest Access Roads and Topography M-1, M-4
Public Forest Access Roads and Topography M-6, M-11, M-12
Soil Series & Drainage Classes M-1, M-4
Soil Series & Drainage Classes M-6, M-11, M-12
Water Resources and Special Management Zones M-1, M-4
Water Resources and Special Management Zones M-6, M-11, M-12
Current Cover Types and Year last Managed M-1, M-4
Current Cover Types and Year last Managed M-6, M-11, M-12
Future Cover Types and Next Scheduled Harvest M-1, M-4
Future Cover Types and Next Scheduled Harvest M-6, M-11, M-12
Proposed Management Direction M-1, M-4
Proposed Management Direction M-6, M-11, M-12
Recreation Facilities and Infrastructure M-1, M-4
Recreation Facilities and Infrastructure M-6, M-11, M-12
State Forest Stands Mosaic (17 separate maps)