New York State
Department of Environmental Conservation

Division of Lands & Forests

FIVE STREAMS
UNIT MANAGEMENT PLAN

FINAL

Towns of German, Pitcher, Smithville,
Pharsalia and McDonough, Chenango County

August 2009

NYS Department of Environmental Conservation
Region 7 Sub Office
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FIVE STREAMS

UNIT MANAGEMENT PLAN

A Management Unit
Consisting of Three State Forests
in Western Chenango County

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COMMISSIONER

MEMORANDUM

TO: The Record

FROM: Alexander B. Grannis ABG

SUBJECT: Final Five Streams Unit Management Plan

DATE: AUG - 4 2009

The unit management plan for Five Streams 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.

Preface

It is the policy of the Department to manage State Forests for multiple uses to serve the People of New York State. The Five Streams Unit Management Plan is the basis for supporting a multiple use goal through the implementation of specific objectives and management strategies. This management will be carried out to ensure the sustainability, biological improvement and protection of the Unit's **ecosystems*** and to optimize the many benefits to the public that these State Forests provide. The multiple use goal will be accomplished through the applied integration of compatible and sound land management practices.

The Five Streams Unit Management Plan is based on a long range vision for the management area. Specific goals and objectives to support that vision have been developed to implement management activities on the Unit for the next 20 years with a review in 5 years and an update due in 10 years. It should be noted that factors such as wood product markets, changing social mores, budget and staffing constraints and forest health conditions may, at the judgement of the Regional Forester, necessitate deviations from the schedule.

Article 9, Title 7, of the Environmental Conservation Law authorizes the Department of Environmental Conservation to provide for the management of lands acquired outside the Adirondack and Catskill Parks. Management is defined as watershed protection, the production of timber and other forest products, recreation and kindred purposes. The Draft State Forest Land Master Plan provides the overall direction and framework for meeting this legal mandate.

***Boldface** words are defined in the glossary

Table of Contents

Preface.. i
Table of Contents.. ii
Green Certification of State Forests iv
Map of the Unit. 1

I. Information on the Unit

A. History.. 2
B. Geography. 7
C. Geology. 9
D. Soils. 10
E. Land Classification and Stages Within the Unit.. 11
F. Forest Resources. 12
G. Wetlands & Water Resources.. 13
H. Fisheries Resources. 14
I. Wildlife. 15
J. Significant Plants & Plant Communities.. 17
K. Recreation.. 18
L. Cultural Resources.. 18
M. Property Use Agreements. 19
N. Roads.. 20
O. Other Facilities.. 20
P. Landscape Conditions. 21

II. Resource Demands on the Unit

A. Timber Resources. 21
B. Biological Resources. 23
C. Recreational Resources. 23
D. Mineral Resources. 24

III. Constraints on the Unit

A. Physical Constraints. 25
B. Administrative Constraints.. 26
C. Societal Influences. 26
D. Department Rules, Regulations and Laws.. 26

IV. Vision.. 26

V. Goals & Objectives

A. Land Management.. 27

B. Public Use & Recreation. 36
C. Community Forestry. 41

VI. Management Action Schedules

A. Table of Land Management Actions. 42
B. Stand Treatment Schedule. 64
C. Grassland Maintenance. 78
D. Boundary Line Maintenance. 78
E. Boundary Line Surveys. 78
F. Public Use Information. 78
G. Public Access Actions. 79
H. Resource Data Collection. 80

VII. Budget. 80

VIII. Glossary. 83

IX. References. 86

X. Appendices

Appendix I Wetlands on the Unit. 89
Appendix II Ponds on the Unit. 92
Appendix III Breeding Birds on the Unit. 92
Appendix IV Wildlife on the Unit. 97
Appendix V Wildlife Harvest Data
(a) Turkey. 100
(b) Small Game. 101
(c) Deer. 101
(d) Beaver. 102
Appendix VI Department Laws, Rules, Regulations and Policies. 102
Appendix VII Property Taxes, 2003. 104
Appendix VIII Stumpage Price by Species. 104
Appendix IX The Americans with Disabilities Act. 105
Appendix X Public Survey, Summary. 106
Appendix XI Geology & Mineral Resources. 108
Appendix XII Trees on the Unit. 112
Appendix XIII Public Comments and Response 113
Appendix XIV SEQRA Documents 118
Appendix XV Maps 122

Green Certification of State Forests

New York State DEC-Bureau of State Land Management contracted with NSF-International and Scientific Certification Systems to conduct auditing for the purpose of obtaining dual certification under Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (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.

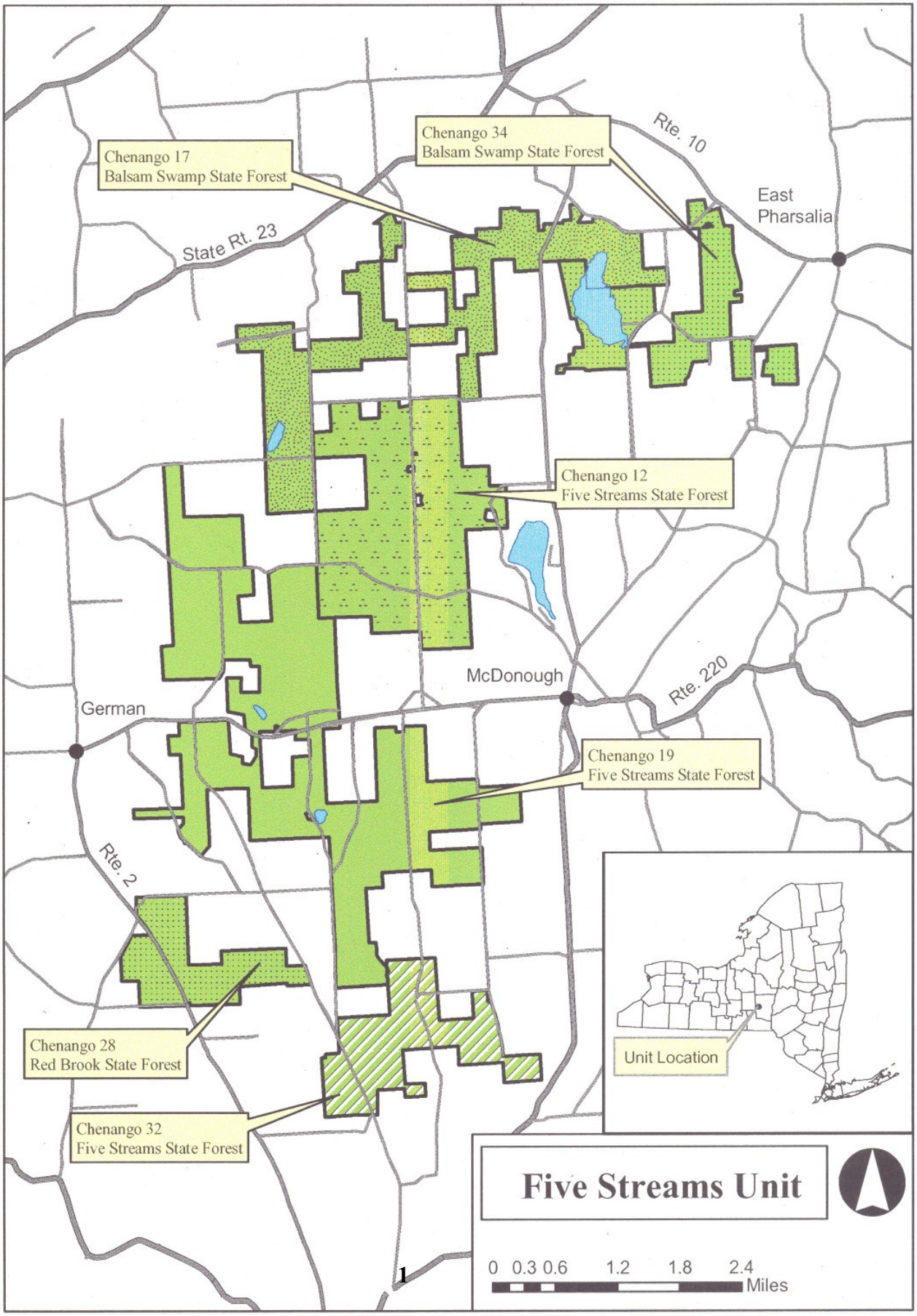
With the dual certification the wood harvested off State Forests from this point forward could now be labeled as "green certified" through chain-of-custody certificates. Green Certified labeling on wood products may assure consumers that the raw material was harvested from well-managed forests.

The Department has joined only an elite few states representing less than 10% of working forests certified as well-managed throughout the Northeastern Region of the United States. The Department's State Forests can be counted as well-managed to protect habitat, cultural resources, water, recreation and economic values, now, and for future generations.

#SCS-FM/COC-00104N
©1996 Forest Stewardship Council
FSC certification means that NY DEC State Forests are managed according to strict environmental, social and economic standards.

#NSF-SFIS-6l741
NY DEC use of the Sustainable Forestry Initiative® program logo mark indicates that State Forests have been certified by a qualified independent auditor to be in conformance with the SFI Standard

Location Map



I. Information on the Unit

A. History

In *The Archaeology of New York State*, William Ritchie (1994) details cultural development from the earliest hunters to the Iroquois tribes first encountered by Europeans at the beginning of the seventeenth century. Human occupation of central New York is linked with the final retreat of the Wisconsin ice sheet nearly 12,000 years ago. As ecological conditions favorable to plant growth began to prevail, a mixed forest developed that supported mastodon, giant beaver, elk, deer and many smaller mammals. Groups of Paleo-Indian hunters equipped with chipped stone tools followed these animals and penetrated the region from the south by following channels and tributaries of major waterways such as the Susquehanna and Allegheny Rivers. These small, freely wandering bands were related by blood or marriage and their movements and temporary encampments were entirely dependent on the migrations of wildlife species. More permanent types of settlement did not occur until the Woodland Stage, beginning in 1,000 BC, with the development of ceramics, agriculture and village life. The Owasco people inhabited New York during the Woodland Stage and cultivated corn, beans and squash to supplement foods gathered from the wild. Excavations at former Owasco sites have uncovered implements for hoe tillage and ceramic vessels used for the preparation and storage of food. In addition to agriculture, hunting and fishing sustained Owasco populations and during this period the use of bow and arrow and domesticated dogs emerged as important features of the hunt.

One of the earliest Woodland sites in Chenango County is associated with the Owasco culture and dates from 905 AD. Known as the White site, the village was located near present day Norwich and included communal houses, cooking features and textile fragments used in burials, but no evidence of cultivated plants. The late Woodland stage of New York's pre-history is notable for the establishment of large, permanent longhouse villages, a developed agricultural economy and the unification of the Six Nations into the Iroquois Confederacy. According to Iroquois tradition, the Confederacy was founded by Deganaeidah in the late fourteenth or early fifteenth century for the purpose of advancing peace between the Mohawk, Oneida, Cayuga, Onondaga and Seneca peoples (Hagan, 1975). A sixth tribe, the Tuscaroras, joined the Confederacy in the early 18th century after migrating from North Carolina following wars with the colonists. The Oneidas inhabited what is today Chenango County and excavations conducted by Ritchie provide evidence of early Iroquois culture at Bainbridge.

During the Revolutionary War, Joseph Brant, a prominent Mohawk was responsible for organizing the Iroquois Confederacy to support the British in their war with the colonists. Brant, who was educated by Anglican missionaries and spoke three of the Six Nation languages, believed that the Confederacy could coexist with the British but the expansionist fervor of the colonist, if not subdued, would lead to the Iroquois' demise. In 1768, in exchange for "lavish" gifts and protection from colonial expansion, the Confederacy agreed to cede lands they claimed in New York, West Virginia, Kentucky and Tennessee to the British Crown. Increasingly, the Confederacy became

dependent on a steady supply of firearms, metal implement and other goods manufactured in Europe. This relationship ultimately strengthened Britain's strategic advantage over the colonists. Throughout the Revolutionary War, while the Confederacy was actively engaged in combat with the colonists, the Oneidas remained neutral. Subsequently, the American campaign of 1779 led by General John Sullivan to "strike a blow for the prompt and permanent overthrow of the Indian power" spared the villages and crops of the Oneidas. In retaliation for their neutrality however, Brant mounted an expedition against the Oneidas, forcing them to take refuge in the white settlements where they remained in active alliance with the colonists until the close of the war. Despite their neutrality and ultimate alliance with the colonists, a treaty drawn at Fort Stanwix in 1784 resulted in the Oneidas ceding to the Federal government much of their land west of the Unadilla River. Governor George Clinton subsequently acquired for the State of New York all land owned by the Iroquois with the exception of certain reservations.

With the reservation period that followed the Pickering Treaty of 1794, Ritchie reports that Iroquois communalism was replaced by a more isolated family life on farmsteads scattered about the reservation lands. By 1800, the longhouse, which represented the unity of both individual clans and the larger Iroquois Confederacy, was increasingly being replaced by the single family log cabin of European introduction.

To facilitate settlement, the State directed Surveyor-General Simeon DeWitt to survey and delineate lands, to be called the Chenango Twenty Townships, into towns measuring 500 chains on each side (1 chain=660'), sections of which were divided into four equal parts and lots to contain 250 acres each. To accomplish the ready sale of these lands, DeWitt was instructed to fix a price at no less than 3 shillings (24 cents) per acre. In 1792, land in Chenango County was offered for sale in large lots and many speculators acquired vast holdings for three shillings per acre and sold to smaller buyers for twenty.

The intensity with which the **landscape** of central New York was transformed following European settlement is comparable only to glaciation. The opening of the frontier resulted in an unprecedented wave of humanity descending upon the region leading to extraordinary and permanent environmental change. Between 1790 and 1820, thirty thousand people moved into Chenango County and cleared more than 130,000 acres of forest land. By 1870, nearly 400,000 acres or 75% of the County was in an open, "improved" condition. Trees were felled, girdled and burned and farms were quickly producing goods for both home use and market. Alan Taylor argues that forest clearing radically diminished nature's wild diversity and that the wholesale substitution of native flora and fauna with cultivated plants and livestock resulted in a "domesticated ecosystem" capable of supporting larger human populations but more vulnerable to disease, drought, erosion and pests. "Settlement was a dual process: of emigration from older to newer communities and of environmental transformation into a landscape that better suited the settlers desires."

Speculators, settlers and other newcomers to central New York learned to interpret the frontier landscape and make calculated decisions based on ecological conditions. “In their commercial, competitive, agricultural and rapidly expanding society, men prospered or failed largely on the basis of their ability to judge and acquire superior lands. The economic race of life rewarded those who correctly read the diverse forested landscape for the signs of agricultural potential and then acquired the best tracts most cheaply.”

Once acquired, clearing forest land not only advanced farm productivity but provided settlers with the opportunity to accumulate capital. In 19th century America, forest land would rise in value two to three times over a ten year period while cleared land increased in value five to twenty times. Furthermore, the subsistence and economic incentives for land clearing was coupled with a righteousness grounded in Christianity. “Any qualms the frontiersman may have felt about the propriety of invading and exploiting the wilderness were calmed with the aid of the first commandment of God to man, Genesis 1:28 : ‘Be fruitful and multiply, and replenish the earth, and subdue it, and have dominion over every living thing that moveth over the earth’” (Nash, 1974).

Within a period of fifty years, the wilderness, which one European observer described as a “vast dome of vegetation where thousands of species are intertwined in a sort of chaos”, had vanished. By 1845, two hundred and twenty five sawmills were operating in Chenango County and at the same time New York led the nation in lumber exports. Out of the dynamic social, economic and political conditions of the late nineteenth century, central New York emerged as a landscape shaped as much by the cycles of nature as by the impress of culture.

In 1793, the land encompassed by what was to become German township was patented to John W. Watkins. There is confusion as to who was the first settler, but the inscription on Abraham Livermore’s gravestone indicates that his arrival in 1796 marked the beginning of a permanent settlement. As with many who were to follow, Livermore arrived from Massachusetts and set about the task of clearing the forest and creating a place for his family in the New York frontier.

German was formed from DeRuyter in 1806 and is named after Obediah German, a land speculator turned politician who lived in North Norwich. German was born in the Hudson Valley and after being admitted to the New York State bar in 1792, he commenced to practice law in Norwich. Between 1798 and 1809, German was a member of the State Assembly and later served as a Republican member of the United States Senate until 1816. He was judge of Chenango County and Commissioner of Public Works before returning to the Assembly in 1819 where he served as Speaker. Before his death in 1842, German was affiliated with the Whig Party in their efforts to advance America’s commercial and financial interests.

The 1845 census reported that 947 people resided in German and that half the township had been cleared for pasture, cropland or hay. There were eight schools, five sawmills, a grocery, an ashery, a tavern and 159 individuals employed as farmers. The dominant agricultural economy

had transformed much of German's pre-settlement landscape and crops and livestock were increasingly being raised to maximize surpluses for an expanding market economy. Donald Parkerson observes that in mid 19th century New York, men and women were "abandoning the security and drudgery of yeomanry (subsistence farming) for the gilt-edged life of material comfort associated with the market economy." In addition to meat, grains and vegetables, the location of a single ashery in German suggests that farmers had a local market for potash generated from burning the potassium-rich maple and elm forests. New York State led the nation in potash production fueled primarily by European demand for its use in manufacturing soap, glass and dies. Taylor suggests that the robust potash trade in central New York provided farmers with the most profitable return on their labor and, perhaps more importantly, accelerated the clearing and burning of forest land.

Industrialization following the Civil War, however, began to reconfigure America's economic and social order. By the late nineteenth century, the amount of land under cultivation in Chenango County had peaked and population began to decline. Migration out of the rural east was encouraged by railroad barons and speculators who advertised fertile land and easy living in Ohio, Minnesota and points west. Urbanization and an exploding industrial labor market provided an alternative to an agrarian existence and people migrated to cities to work in factories, mills and sweatshops. The same industries that drew people to the cities also produced labor saving implements and technologies that required fewer people on the farm. By 1920 the population of Chenango County had declined 15% but in upland townships such as German and Pharsalia, where farms were located on marginally productive soils, the population declined by more than 50% of their 1870 level. A 1928 study conducted by Cornell University's Agricultural Experiment Station found that "uninhabited houses in various stages of disintegration are seen from all roads in Pharsalia" and that... "dwellings and barns are in many cases reduced to heaps of fallen material which are rapidly disappearing under a vigorous growth of weeds and trash."

Owing in part to recommendations from Cornell but, more importantly, the advocacy of Governor Franklin D. Roosevelt, New York State undertook an ambitious program to reclaim former agricultural land through reforestation and scientific forest management. In a 1931 speech to the Conference of Governors, Roosevelt detailed New York's rural land problem and argued that "the greater part of this land should be put into a different type of crop which will take many years to harvest but which, as the years go by, will, without question, be profitable and at the same time economically necessary-the growing of trees." Together with Senator Charles J. Hewitt, chairman of the State Senate's powerful Finance Committee, Roosevelt successfully campaigned for the passage of the Hewitt Amendment which authorized the acquisition "by gift or purchase, reforestation areas, which shall consist respectively of not less than 500 acres of contiguous lands, which shall forever be devoted to the planting, growth and harvesting of trees such as shall be deemed by the Conservation Commissioner best suited for the lands to be reforested." With relatively high rates of farm abandonment, Chenango County became an early focus of state land acquisition efforts. Within one year of the Hewitt Amendment's passage, 16,000 acres of abandoned farmland had been acquired in Chenango County and another 57,000 acres would ultimately be purchased. Tom Patton argues that the success of the Hewitt

Amendment put New York State in the forefront of public forestry and established Roosevelt as America's most important conservationist.

Shortly after his inauguration in 1933, President Franklin Roosevelt signed legislation authorizing the Civilian Conservation Corp (CCC). The United States was four years into the Great Depression and Roosevelt's New Deal, which included the CCC, was designed to, in his own words, "put America back to work". Drawing on his experience as governor of New York where he created the Temporary Emergency Relief Administration and hired 10,000 men to work in the woods , Roosevelt pledged to put a million men to work in a national reforestation program. Under the supervision of U.S. Army personnel, men between the ages of 18 and 26 were employed in a variety of conservation projects including flood control, habitat improvement, fire protection and reforestation. There were five camps in Chenango County including two in Sherburne and one in Preston, McDonough and North Pharsalia. During its eight year history, 1,500 men worked at the McDonough Camp and were responsible for numerous conservation projects including the reforestation of 3,000 acres of newly acquired state land within the Five Streams Unit. A stone chimney along Route 220 marks the location of the McDonough Camp and has recently been restored as the Civilian Conservation Corp Historic Site.

Together with reforestation, the decline of agriculture in New York State during the early 20th century resulted in the emergence of second growth forest as a dominant landscape feature. In the absence of plowing, grazing and other land use activities that checked forest succession, trees began to reclaim old pastures, fields and orchards.

In 1875, when both population and land under cultivation peaked, 37% of German township was in forest cover. Today 86% of the township is in forest cover, representing an increase of nearly 10,000 acres. While forest regrowth has been celebrated by some, others are more reserved in describing the change in landscape conditions. Gerald Temple Sr., a life-long German resident, remarked that "it's sad to see meadows that I remember having mowed now grown up to shrubs and trees". And writing of her family farm that was eventually sold to the state, Gladys Huntley laments the loss of her "Garden of Eden"... "now in East German there is *nothing*. Only one house standing on the old road and the empty school house, all the village land is State owned".

Coupled with the process of reforestation has been a dramatic change in such conditions as wildlife habitat, streamflow and the amount of commercial timberland. Recently, **parcelization**, where properties are subdivided into smaller units, has introduced new features and activities into the landscape that have changed both the configuration of land ownership and how people use and value natural resources. Rural land use has shifted away from commodity production and is increasingly focused on recreation, leisure and other amenity values. Absentee land ownership, driven by outside demand for vacation homes, rural retreats and hunt camps, has changed both the character of rural landscapes and the social relations that take place there. In a 1991 study of Chenango County, Janet Fitchen observed that anxiety and friction often emerge when "city meets country" and that "awareness of change becomes crystallized around a clear

dichotomy of 'locals' and 'city people'". From the Owascos to Oneidas, Yankee settlers to urban refugees, the rural landscape of German continues to represent layers of time shaped by both the cycles of nature and the impress of culture.

B. Geography

The majority of the Five Streams Unit is located within the western Chenango County township of German. This landscape is post-agricultural in character, dominated by second growth forest, transitional fields and a network of **dendritic** streams that form the headwaters of the larger Chenango and Susquehanna drainage basins. The gently rolling topography and a common history of forest clearing and regrowth have shaped the landscape that is evident today. Eighty six percent of German is forested and approximately 8% is in an open condition dominated by old field or shrubland. The remaining 6% of the township, or 1,115 acres, is in active agriculture including pasture, hay and cropland.

From a hilltop along County Route 5 the landscape unfolds like woven cloth. Trees are everywhere but patterns emerge revealing the outlines of old fields, conifer swamps, roadside pastures and in the distance, an unbroken **canopy** of upland forest. The Five Streams Creek cuts a channel through the flat topped hills and a dark ravine of hemlock marks its meandering flow. Manufactured housing and weathered barns, high tension utility lines and a network of County, Town and seasonal roads are other characteristic features of the German landscape that reveal contemporary patterns of living.

The hamlets of Smithville Flats, McDonough and East Pharsalia are centers of local social and economic activity with each supporting a post office, fire department, town hall, and a number of stores, restaurants and churches. German Four Corners is located at the intersection of County Routes 2 and 5 and is marked by the German Baptist Church and a cluster of houses. The German Town Hall and garage are located nearby. There are no State Highways in German but a network of County and Town roads link the hamlets with the larger region as well as provide access into remote forest areas.

The 2000 census reports that 378 people live in German, a sixty percent decline from the 1845 level of 947. With 11 people per square mile, German has the lowest population density in Chenango County. Housing is dispersed and of the 227 units within the township, 66 units or 29% are for seasonal or recreational use. There are no manufacturing or retail establishments within the township and most people commute to their place of work.

At the County level, of the 23,540 people in the labor force, approximately 30% or 7,167 people work outside of Chenango County. The 1997 economic census reports that 27% of the County's labor force is employed in manufacturing, 16% in retail trade, 16% in health care and education, and 6% in construction. Another 6% or 1,408 people work in agricultural and forestry. Norwich, Greene, Binghamton and Cortland are regional economic centers that support a number of retail and manufacturing establishments, hospitals, schools and government offices. Proctor &

Gamble, IBM, Universal Instruments, SUNY Binghamton and the Raymond Corporation are important regional employers. The unemployment rate in Chenango County is 4.8% and per capita income is $20,787, well below the State and National average of $33,901 and $28,546 respectively.

While census data provides information on local demographics, County tax rolls reveal a changing pattern of land ownership. Parcelization, where properties are subdivided into smaller units, is increasing throughout the region but appears to be occurring at an accelerated rate within German township. Between 1988 and 1998 there was a 33% increase in the average number of tax parcels in nine western Chenango County townships. During the same period, German experienced a 79% increase in the number of tax parcels with 178 new parcels added to the tax rolls. Furthermore, approximately one half of these parcels are owned by individuals with permanent addresses outside of Chenango County suggesting that ownership is for leisure or other recreational pursuits.
The Five Streams Unit consists of six separate State Forests totaling 9,634 acres. The following is a list of State Forests, their reforestation numbers (CRA-Chenango Reforestation Area) and acreage:

State Forest	Reforestation Area	Acreage
Five Streams	**Chenango RA#12**	**1,926**
Balsam Swamp	**Chenango RA#17**	**1,763**
Five Streams	**Chenango RA#19**	**3,573**
Red Brook	**Chenango RA#28**	**602**
Five Streams	**Chenango RA#32**	**854**
Balsam Swamp	**Chenango RA#34**	**916**
Total		**9,634**

Seventy percent of the Unit is located within German where it represents approximately one third the township's total land area. The remaining acreage is distributed across Pitcher, Smithville, Pharsalia and McDonough. The Unit is located on upland sites ranging in elevation from 1,160' along the Five Streams Creek on CRA# 32 to 1,840' on a hillside west of Balsam Pond on CRA#34.

C. Geology

Most surface geology in the region covering Chenango and Cortland Counties was influenced by the processes of glaciation that occurred during the Pleistocene Epoch. Ice sheets from the last glaciation episode (Wisconsinan glaciation episode) retreated from the area approximately ten thousand years ago, leaving behind numerous sedimentary deposits and surficial features; including elongate scour features, some filled with water that are now called the Finger Lakes.

Most soils and sediments in the region are related to past glacial activity, and subsequent weathering and erosional processes over the last 20,000 years. The underlying parent rocks (rocks that were subjected to the processes of glaciation, weathering and erosion) of this region are sedimentary rocks; specifically shale, sandstone and minor limestone that were deposited in shallow seas that existed in this region during the Devonian Period of the Paleozoic Era, approximately 370 million years ago. Any post Devonian rocks have been eroded from the region. In addition, the presence of rounded igneous and metamorphic rock fragments are indicative of past glacial activity transporting material into the region from the Canadian Shield to the north.

The resulting surface geology of the Five Streams Unit includes glacial till as the dominant deposit in the area. It is located extensively throughout the area, with exceptions being topographically low areas and escarpments subjected to erosion. **Kame** and **moraine** deposits of sand and gravel are located intermittently in topographically low areas, and are the result of glacial meltwater **fluvial** systems. Sediments from prehistoric lakes have filled the low portions of the valley areas. In addition, swamp deposits and recent clay, silt and sand deposits from flowing water have accumulated in recent topographical depressions. Bedrock outcrops and subcrops of Devonian shales, siltstones, sandstones and minor limestones are located intermittently on the flanks and crests of ridges and hills in the area. This is most likely due to the erosion of overlying glacial till, causing the exposure of the bedrock.

A bed rock layer of limestones and dolomites is located at a depth of approximately 5,500 feet beneath the Unit. This layer was created by depositions in warm shallow and relatively open marine seas that occupied this region 435 - 500 million years ago. It is suspected that this layer of bedrock may contain significant quantities of natural gas due to productive gas wells having been drilled into similar age rocks in various counties to the north and southwest of the Five Streams Unit.

For additional information on Geology see Appendix XI: Geology and Mineral Resources.

D. Soils

The soils on the Unit are glacial till deposits left by the advance and retreat of glaciers between 300,000 and 10,000 years ago. The factors which influence the development of soil type include the land surface, the slope and the depth to the water table. Soils on convex slopes or hillsides are generally moderately well to well drained. Those soils in level areas, or in slight depressions where the water table is close to the surface are generally wet and poorly drained.

The soils on the Unit are mostly of the Volusia-Mardin-Lordstown association. Within this group of soils, Mardin soils are the most common on the Unit. These soils are found on gently sloping to steep hilltops and hill sides. They are moderately well drained and have a **fragipan** layer of dense, compacted soil that restricts water movement and root development. The Volusia soils are generally poorly drained with a depth of 10 to 20 inches to the fragipan layer. Both the Volusia and Mardin soils become saturated during wet seasons because the drainage of water is limited by the fragipan layer beneath the soil surface. Lordstown soils are present, but less common than Mardin or Volusia soils on the Unit. Lordstown soils are moderately deep and well drained. They do not have a fragipan layer so they generally do not become saturated or limit root development. Chippewa series soils are also present on the Unit. Chippewa soils are deep, poorly drained to very poorly drained soils on upland areas. They have a depth to the fragipan of 8 to 20 inches. These soils are often found on those areas with hemlock swamps.

Although soil description provides information on subsurface characteristics, above ground conditions reveal much about land use history and ecological complexity. The smooth ground surface in most plantations is due to repeated plowing and cropping in the 19th and early 20th centuries, prior to reforestation. These soils typically have a well-defined plow layer and many properties such as the porosity and availability of nutrients have been altered from pre-settlement conditions. Stones and other impediments to plowing have been removed resulting in relatively uniform soil texture. Unplowed soils in contrast, have an undulating surface with a well-developed hummock and hollow micro topography. The hollows are created when trees are wind thrown, while the hummocks are the decayed and toppled remains of the tree's root system. The scattered arrangement of hummocks and hollows results in a diversity of wet and dry soil conditions. This diversity of conditions allows for the germination and growth of a wide variety of plants depending upon their requirements for soil moisture. The history of plowing and agriculture further altered the forest character by eliminating many native herbaceous plants. The result is that plantation areas have much fewer wildflower and other herbaceous plant species than forested areas with unplowed soils.

E. Land Classifications and Stages Within the Unit

Present Land Classification, Acreage and Size Class Distribution

Land Class *	Acres	Acres by DBH Class			% of Total
		1"-5"	6"-11"	12"+	
Ponds	181				2
Open	47				<1
Shrub	80				<1
Wetland	1,186				11
Mixed Hdwd/Natural Conifer	1,398	-	583	815	16
Natural Hardwood	2,824	168	1,452	1,204	29
Conifer Plantation	3,918	68	1,894	1,956	41
Total	9,634	236	3,929	3,975	100

* see glossary for definitions

The above data was compiled from State Forest inventory records. Ponds are those man-made reservoirs constructed for enhancement of wildlife habitat, provision of recreational opportunities and control of flood waters. Open lands are essentially treeless and contain a mix of grasses and **forbes.** The largest area of open land on the Unit is the 26 acres of upland grassland on Chenango 19 beneath the NYSEG power lines. The remaining open land acreage is in isolated, small patches. Shrub lands are early successional communities commonly containing woody shrubs, apple and thorn apple trees along with scattered openings. Wetlands include open wet meadows, alder wetlands, beaver ponds and wooded wetlands. Wooded wetlands typically consist of eastern hemlock, red maple, and yellow birch along with a varying mix of other tree species. Mixed natural hardwood/natural conifer stands are comprised of at least 10% native conifers (eastern white pine, eastern hemlock, balsam fir, or red spruce) in a mixture with hardwoods. Natural hardwoods consist of areas entirely or nearly entirely of hardwood species. Typical hardwoods found on the Unit include red maple, sugar maple, American beech, white ash, black cherry, and aspen species. Conifer plantations contain planted trees of species such as red pine, Norway spruce, Scotch pine, and larch.

As the above table shows, the forests on the Unit are dominated by pole (6"-11") and saw timber (12"+) size trees. In comparison, only slightly more than two percent of the Unit is in seedling/sapling sized trees, 1"-5" in diameter. The table also indicates the relatively high percentage (12%) of wetlands and the scarcity of open land (<1%) within the forests on the Unit. Detailed information about vegetative communities can be found in the Department of Environmental Conservation publication Ecological Communities of N.Y.S. by Carol Reschke.

F. Forest Resources

The forests on the Unit are comprised of a mix of native hardwoods and softwoods and conifer plantations. Conifer plantations comprise 41% (3,931 acres) of the Unit. About 70% of these plantations were established in the 1930s. These plantations consist primarily of red pine, Norway spruce and white spruce with many plantations containing mixed species. Based upon the primary species in the **stand**, there are approximately 1,641 acres of red pine, 1,464 acres of Norway spruce and 505 acres of white spruce. Other plantation species include European larch, Japanese larch, white pine, Scotch pine and jack pine.

The conifer plantations were established on former agricultural lands having varying soil conditions. Norway spruce has proven to be very adaptable and grows well on the Mardin-Volusia-Lordstown soils found on most of the Unit. Norway spruce also has demonstrated the ability to naturally regenerate following thinnings in spruce stands. Red pine is less well adapted to these soils and grows best on better drained Mardin or Lordstown soils. While red pine has grown well on many sites, it is not able to naturally regenerate except in occasional spots after a complete removal of the overstory trees. Red pine on poorly drained sites is also more prone to wind throw than Norway spruce.

The native forests on the Unit are of the northern hardwood forest type. Based upon the primary species within the stand, the native forests on the Unit contain the following species in declining order of prevalence: eastern hemlock, red maple, hard maple, black cherry, aspen (quaking and big-tooth), white ash, and American beech. Native species that are less common include basswood, yellow birch, balsam fir, white pine, red oak, red spruce, white cedar, black spruce and tamarack. Some tree species never attain a size large enough to occupy the main overstory canopy or become merchantable. These include service berry, eastern hophornbeam, striped maple and hornbeam.

The native conifers on the Unit including hemlock, balsam fir, black spruce, tamarack, red spruce and white cedar are often found on the wetter sites. Hemlock frequently grows in poorly drained depressions or along stream corridors. Black spruce and tamarack are northern boreal species that are only found on the Unit in the wetland surrounding Jam Pond. Red spruce occurs at Jam Pond and in a few other wetland sites. Red spruce of near State record size grow on Chenango RA# 17.

There are a number of differences between areas that are plantations and areas that are native forests. Plantations were established on former open agricultural land that had either been plowed or pastured. The history of agriculture on these areas has resulted in simplified forest conditions compared to areas that have always been forested. Plantations generally have fewer tree species than native forest areas and they may often be nearly pure **monocultures**. Plantations are also comprised of trees that are all the same age with few if any **cavity** trees or standing dead snag trees. They also have less large **coarse woody debris** on the forest floor than natural forests.

Research in forest ecology has shown that dead trees are as important as healthy live trees to the functioning of a forest. Standing, dead snags provide feeding sites for birds and insects. Woodpeckers feeding on insects create cavities that are then used by other birds and mammals. Fallen trees in the forest create what is known as coarse woody debris. Coarse woody debris is important because while the fine branches soon decompose after a tree falls, the larger branches and tree trunk remain for decades and have many functions in the forest as they go though the decay process. Coarse woody debris contributes to the structural complexity of the forest floor and provides habitat for insects, fungi, small mammals and other organisms. Decayed, downed trees also serve as seed germination sites for tree species such as hemlock and yellow birch. Coarse woody debris also contributes to nutrient cycling (the moving of nutrients from wood to the soil) and, with it's ability to store large amounts of water, acts as a reservoir during periods of drought.

G. Wetlands and Water Resources

The entire Five Streams Unit is a part of the upper Susquehanna River watershed. The Unit is located on an upland plateau between the Otselic and Chenango rivers. The Otselic and Chenango rivers generally flow south until they meet at Chenango Forks. The Chenango River then continues to flow 12 miles further south until it meets the Susquehanna River in Binghamton. Nearly all of the Unit is within the watershed of Genegantslet Creek, which is a tributary of the Chenango River. The exception is a small portion along the northern edge of Chenango 12 that is within the watershed of Brackel Creek, which flows into the Otselic River.

The watercourses on the Unit are designated as having either C or C(T) standards. The classification system, regulations and accompanying authority are described in ECL Sections 15-0313 and 17-0301. Several classified trout (C(T)) streams are located within the Unit. These include Five Streams, Forty Brook, and Strongs Brook. It is important to note that other streams on the Unit, while not having C(T) classification, may indeed contain trout.

The Unit contains several ponds with dams to control water flow, including Balsam Pond, Baker Pond and Pucker Pond. Balsam Pond is the largest water body on the Unit and is 146 acres in size. The area that is now Balsam Pond was originally a conifer swamp. The pond was first established in the late 1930s or early 1940s by the CCC's. This work created a pond of nearly the same size as

it is today. The present dam at Balsam Pond was constructed in 1967-68 by the federal government as part of the Genegantslet Creek watershed project. The dam was built through an agreement between the Federal government and New York State to control flooding down stream in the area of Smithville Flats. Under terms of the agreement, the U. S. Department of Agriculture, Natural Resources Conservation Service, performs annual inspections on the dam and the DEC is responsible for any maintenance. The emergency spillway outlet of Baker Pond was severely eroded in 2001 during spring run-off conditions. Resident beaver had plugged the drop box on the dike with sticks and mud resulting in the water overflowing the dike and eroding the dike base and outlet area.

Wetlands qualify as legally protected if they meet the criteria found in Section 14-0107 of the Freshwater Wetlands Act and are at least 12.4 acres in size. The gentle topography on the Unit results in numerous wetlands where the flow of water is restricted. A total of 95 wetlands comprising 1186 acres are on the Unit. Fourteen legally protected wetlands are in part or wholly on the Unit. Appendix I lists the wetlands on the Unit by forest and size. Appendix III lists the watercourses on the Unit. Small intermittent streams are not listed. Appendix IV lists the fish species found in some of the Unit's waters.

H. Fisheries Resources

The Unit contains a mix of warm and cold water fisheries. Balsam Pond is a warm water fishery. This pond contains a mix of largemouth bass, smallmouth bass, chain pickerel, yellow perch, brown bullhead, blue gills, crappies and sunfish. Tiger muskellunge have been stocked in the past with the last stocking occurring in 1995. However, there have been very few reports of anglers catching any of the adult tiger muskies.

Baker Pond and Pucker Pond are shallow and contain few if any fish. Both ponds provide good waterfowl habitat. The ability of Baker Pond and Pucker Pond to support fish populations is severely limited by low oxygen conditions that occasionally occur during harsh winters. The only game fish which might be present are brown bullhead which are tolerant of low oxygen conditions.

The other ponds on the Unit are Jam Pond and several beaver ponds. Jam Pond is unable to support fish populations due to its natural acidity.

The cold water fisheries on the Unit consist of the numerous small trout streams which are tributaries to the Genegantslet Creek. These streams include Strongs Brook, Five Streams and Forty Brook. The most significant of these small trout streams is the Five Streams. These trout streams are not stocked. Instead, they are managed for self-sustaining populations of wild brook trout.

I. Wildlife

The presence and abundance of wildlife species depends upon the availability and quality of suitable **habitat**. The Town of German is now approximately 85% forested. The future trend is for an increasing amount of forested land as abandoned agricultural fields grow into forest. While the factors which affect individual wildlife species populations are many and varied, the general trend in this area of Chenango County is for the growth of woodland wildlife populations and the decline of those species associated with open land.

Current knowledge of many wildlife species is limited. The first statewide survey of reptiles and amphibians was recently completed to create the New York State Amphibian and Reptile Atlas. A statewide survey of birds was first completed in 1980-1985 for the production of the New York State Breeding Bird Atlas. Field surveys are currently underway to update this atlas. Once the new atlas is completed, better information will be available to ascertain bird species population trends.

An estimated 114 species of birds, 42 species of mammals, 14 species of reptiles and 13 species of amphibians may be found on or in the vicinity of the Unit. Following are descriptions of species of popular interest, species with declining populations, and those species considered rare. For a complete list of the species expected to be found on or in the vicinity of the Unit, see Appendix V.

Species of General Interest

Deer - The Department manages deer populations through input from the deer management task force for each Deer Management Unit (DMU) The Unit is within DMU number 7M. The present deer population is approximately 23 deer /square mile including approximately 3.3 bucks/square mile. Deer populations at this level impact forest vegetation by restricting the growth and development of hardwood seedlings. The Department expects the deer population to increase slightly.

Bear - In recent years bear have been moving into Chenango County from their Catskill range. They are currently on the Unit in a low population density. Their numbers are expected to increase as more open land becomes forested.

Turkey - Turkey are common on the Unit. They have a high productivity potential as one hen can produce 10 or more chicks per year. Their numbers are expected to increase.

Eastern coyote - Coyote are present throughout the Unit. Recent DNA research suggests that the eastern coyote is a genetic mix of Algonquin wolf of Canada and the western coyote. Their population is expected to increase slightly.

Backyard song birds - Northern cardinals, blue jays, black-capped chickadees, tufted titmouse, dark-eyed juncos and mourning doves are expected to remain stable or increase slightly.

Woodpeckers - Pileated, hairy and downy woodpecker populations are expected to increase as the forests mature. They are important for their ability to create tree cavities that are needed by other bird and mammal species.

River Otter- Otter populations have recently been supplemented in Chenango County through stocking by the Department. Their population is expected to increase.

Bobcat - Bobcat are present in low numbers. Their population is expected to remain stable.

Fisher - Fisher use hemlock woods for their habitat. They are one of the few species that prey on porcupine. Their numbers are expected to increase.

Beaver - Beaver are important for their ability to create wetland habitat for other animal species. In the Town of German, there are currently ten active beaver colonies, each with approximately four beaver. Beaver numbers are expected to be stable in the future.

Species in Decline

Partners In Flight (PIF) is a cooperative project involving federal, state (including NYS DEC) and local governments, professional organizations, conservation groups and others working together to monitor, inventory and develop management plans to protect non-game birds and their habitats. PIF has assessed bird populations for each physiographic area of the country. The Unit is within the Allegheny Plateau physiographic area. This data was referred to for the following description of bird species populations. Bird species in decline described here are those listed by PIF as having a significant decrease in population over the past 30 years, which also have been documented in the vicinity of the Unit through breeding bird survey records.

Many species associated with open fields or meadows are currently in decline due to the expanding forest cover. These species include the American goldfinch, American kestrel, brown-headed cowbird, eastern meadowlark, horned lark, field sparrow, grasshopper sparrow, Henslow's sparrow, savannah sparrow, and vesper sparrow.

Forest bird species currently in decline include the American woodcock, Canada warbler, eastern wood-pewee, eastern towhee, great horned owl, nashville warbler, red-shouldered hawk, and wood thrush. Other declining species include the common grackle, red-winged blackbird, and spotted sandpiper.

PIF identifies eleven species as being priority species for conservation efforts in the Allegheny Plateau area. Five of these species have been recorded in the vicinity of the Unit. They are: Henslow's sparrow, American woodcock, wood thrush, Louisiana waterthrush and the black-throated blue warbler.

Mammals in decline are those generally associated with grasslands or old fields and include the red fox, cottontail rabbit, varying hare, woodchuck, least shrew and the meadow jumping mouse.

New York State has a classification system for rare species. In order of increasing rarity, the classes are Special Concern, Threatened and Endangered. The following list contains the rare species on or in the vicinity of the Unit. The breeding status is listed for birds.

Threatened Species

Henslow's sparrow - Confirmed breeder

Species of Special Concern

Common Loon - Possible breeder

Grasshopper sparrow - Probable breeder

Horned Lark - Probable breeder

Osprey - Possible breeder

Red-shouldered hawk - Probable breeder

Sharp-shinned hawk - Probable breeder

Vesper sparrow - Probable breeder

Jefferson salamander

Blue spotted slamander

Spotted turtle

Wood turtle

J. Significant Plants and Plant Communities

Jam Pond is a diverse **peatland** that has developed in a glacial depression consisting of open water, a floating mat of vegetation, a **bog** thicket and wet forest. A 1993 survey conducted by the New York Natural Heritage Program delineated three distinct ecological communities adjacent to the pond's open water and identified representative plant species. An inland poor fen surrounds the pond and consists of a low, open floating mat of vegetation dominated by sphagnum species. **Ericaceous** shrubs, sedges, orchids and pitcher plants are common species growing on the floating mat. The highbush blueberry bog thicket occurs as a thin ring at the interface of the inland poor fen and the black spruce-tamarack bog. Characteristic species include highbush blueberry, black huckleberry, catberry and black spruce. A black spruce-tamarack bog surrounds the bog thicket and in addition to spruce and tamarack, red maple is a common species. The black spruce contains eastern dwarf mistletoe, a small leafless plant that parasitizes trees by extracting water and nutrients, causing severe growth loss and mortality. Other species include Southern twayblade, white fringed orchid, purple fringed orchid, grasspink, rose pogonia, narrow leaf sundew and small cranberry occur at Jam Pond.

K. Recreation

A variety of outdoor recreational opportunities exist on the Unit. A camping area consisting of 12 designated primitive sites and a pit latrine is available at Balsam Pond. A day use picnic area is located next to the pond and a boat launching site is also available to provide access for trailer launched boats. In 1996, this camping and day use area were upgraded. The access road was improved and parking pads, picnic tables and fire rings were installed at the camp sites. While Balsam Pond receives most of its use during the summer, a significant number of people use it during the winter for ice fishing. Baker Pond and Pucker Pond do not have designated camping sites but receive use from hunters and campers. The access trail leading from Pucker Street to the dam at Pucker Pond is deeply rutted with large water holes from off-road vehicle use. Significant day or overnight public use also occurs on Chenango #32 along the Five Streams, west of where it crosses Skillman Road.

Snowmobiling is also available on the Unit. NYS Snowmobile corridor trail # 2 traverses through Chenango #32 for 2.0 miles, of which 1.8 miles are located off road and 0.2 miles follows the Jones Road. In addition to the corridor trail, snowmobilers also use many unplowed roads within the Unit and the cleared NYSEG power line easement on Chenango #19.

The remote character of many areas on the Unit provide ideal conditions for recreational activities such as wildlife observation, hunting, fishing, trapping and orienteering. Hunting, fishing and trapping are permitted anywhere on the Unit, except where prohibited by regulation, law or sign. Hunting occurs throughout the Unit and is most prevalent during the fall deer season. In addition to ponds on the Unit, fishing opportunities are also available on Five Streams and Strong's Brook, which are classified trout streams.

A trail for use by permitted individuals with mobility impairment disabilities is located on the south side of Chenango RA #28, east of County Route 2. Permits issued by the Department allow individuals with certified disabilities to ride this trail on all-terrain vehicles to obtain off-road access. Poor drainage on this trail has resulted in muddy conditions in spots.

L. Cultural Resources

The New York State Archeological Site Index Map indicates that there are no sites on the Five Streams Unit or within the Town of German. However, using a broader definition of cultural resources reveals that a rich assortment of artifacts and landscape features exist that represent historic and contemporary relations between people and nature. Farm sites, field systems, plantations and contemporary roadside developments provide meaning about the relationship between people and nature. The cultural landscape is the manifestation of this relationship and it offers clues about both historic patterns of living and contemporary society. As the geographer Peirce Lewis (1979) writes "all human landscape has cultural meaning" and "the ordinary run of the mill things that humans have created and put upon the earth provides strong evidence of the kind of people we are, and were, and in process of becoming."

Evidence of 19th century culture can be found in the cellar holes, graveyards, stone walls and orchards that are located throughout the Five Streams Unit. A recent inventory identified 19 former farm sites, 3 graveyards and the foundation of a old district school house. These ordinary features represent cultural activity in response to both the natural environment and the region's dominant agricultural economy. The process of forest clearing, abandonment and regrowth signify both the ecological resilience of the native forest and a response to the economic and social conditions that prevailed during 19th century New York.

Although cultural resources are often associated with historic and pre-historic conditions, relatively new landscape features represent a contemporary relationship between people and nature. Plantations of spruce and pine established on the Five Streams Unit tell of a distinct period in American conservation history when reforestation was advanced for both social, economic and environmental goals. The ubiquitous native forest of maple, cherry and ash is both a spectacular autumn scene and an international timber commodity exchanged on the trading floors of New York, London and Tokyo. Trail networks, campgrounds and other recreational facilities have cultural meaning in that they signify how a segment of contemporary society chooses to experience nature. Furthermore, transcontinental utility lines, cell phone towers and manufactured housing reveal the influence of technology and globalization that have come to define patterns of living in the 21st century.

M.. Property Use Agreements

The following easements or reservations exist on the Unit:

CRA#	Survey Map	Purpose	Easement Holder
17	**Proposal K**	**Easement to construct County Rt. 7A**	**Chenango County**
19	**Proposals L, P and Q**	**Easement for 150' wide power line clearing**	**New York State Electric and Gas (NYSEG)**
19	**Proposal S**	**Reservation to build and maintain piping to two springs.**	**Owner of inholding**
32	**Proposal C**	**Reservation to spring well and maintain water pipe line.**	**Grantor of Proposal C**
34	**Proposal G, stand 54**	**Reservation for spring and water pipe line.**	**Grantor of Proposal G**

N. Roads

A 0.2 mile road into Balsam Pond campground is the only **Public Forest Access Road** on the Five Streams Unit. Town and County Highways provide the majority of access onto and through the Unit. These roads are necessary for timber harvesting operations, public use and other activities associated with State Forest management. Road conditions vary and many Town Highways have limited, seasonal access.

A section of Pucker Street and the former Seymour Road on Chenango RA #19 were abandoned following State acquisition in 1962. A .4 mile section of Fultner Road passing through Proposal A on Chenango RA #34 was relocated and the original road was abandoned following state acquisition.

A section of Shingle Street west of Gramch Road on Chenango RA #19 is currently impassible due to flooding resulting from beaver activity.

O. Other Facilities

Boundary Lines

State Forest	Miles
Chenango RA#12	10.9
Chenango RA#17	21.8
Chenango RA#19	28.2
Chenango RA#28	6.0
Chenango RA#32	9.0
Chenango RA#34	13.1
Total	89.0

Signs

State Forest	Type	Number
CRA#17	Forest ID	1
CRA# 19	Forest ID	1
CRA# 28	Forest ID	1
CRA# 32	Forest ID	1
CRA# 34	Information sign at Balsam Pond	1
CRA#34	Directional sign	1

Rock Boulder Vehicle Barrier

A boulder vehicle barrier is located on Rabbit Path Road, Chenango RA #19, survey map Proposal C. A boulder vehicle barrier is also located on the access road leading into Baker Pond.

Parking areas and Pull-offs

There are 27 areas on the Unit identified as suitable for parking. Twenty five are small pull-offs or areas where the public can safely park off the road. These areas are wide spots or clearings along the roads that are often created by forest product sales. They are not signed and are only suitable for a few vehicles at most. Pull-offs are sometimes used to set up campers, especially during hunting

season. Parking areas differ from pull-offs because they are designed and signed for public parking and have established parking perimeters. There are two designated parking areas within the Unit: one at Balsam Pond Dam and another at Balsam Pond boat launch.

P. Landscape Conditions

Recognizing that the Five Streams Unit is part of a larger rural **landscape**, land management decisions are in part a response to economic and ecological conditions beyond State land boundaries. Landscape analysis, based on tax rolls, census data, forest inventory and field assessments, and summarized using Geographic Information Systems (GIS), identified specific patterns and processes that inform our understanding of contemporary landscape conditions. Results of this analysis reveal that:

The Unit exists within a largely forested landscape with a low population density. Farmland continues to transition to shrub and second growth forest. Within the township of German, 85% of the land area is forest and the population density is approximately 15 people per square mile, the lowest in Chenango County.

* Between 1988 and 2000 there was a 33% increase in the average number of tax parcels in nine western Chenango County townships. **Parcelization** appears to be driven by demand for vacation properties, second homes and other types of absentee ownership.
* Between 1996 and mid-2008, the market value of four common hardwood timber species (hard maple, black cherry, white ash and red maple) has increased 25%. This incentive appears to have increased harvest rates, and on some private properties resulted in complete liquidation of current timber assets.
* The Unit includes large portions of the Five Streams Creek and Strongs Brook which are important tributaries to the Genegantslet Creek, Chenango River and larger Susquehanna River drainage basin.
* Corridors of largely open land exist north of the Unit along Rt. 23 and west of the Unit along County Rt. 2 north and south of German.

II. Resource Demands on the Unit

A. Timber Resources

Timber resources includes 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 within the Unit 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 have resulted in a timber resource of very high quality. New York's State Forests have been "green certified" by the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI) programs. The forests were certified as being managed using sustainable forestry practices which have met the policies and principles of the FSC and SFI. Receiving this certification for practicing sustainable forestry indicates that New York State Forests are managed for long-term ecological, social and economic health.

At the regional scale, there is an historic strong demand for hardwood sawtimber from regional sawmills. Appendix VIII illustrates the change in price for black cherry, white ash, hard maple and red maple based upon figures from the DEC **Stumpage** Price Report for the reporting area which includes Chenango County. Demand for red pine has been steady due to demand from regional and foreign industries which manufacture it into log cabins, landscaping wood and utility poles. The primary source of pine for regional industries are the abundant plantations located on State Forests and their relative scarcity on private lands.

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 housing market since spruce lumber is primarily used for wood framing construction.

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. According to the 2000 Census, the Town of German has the highest percentage of homes in Chenango County which heat with wood.

The demand for timber on the Unit also is an indicator of those employed in the forest products sector of the economy who view State Forests as a source of employment. One rough measure of this is the number of people who want to receive notice of timber sales from State Forests in the Unit. Currently 121 individuals or companies have expressed interest in or actually purchase timber

sales within the Unit. Of this total, 70 individuals or companies are located within 25 miles of the Unit. Of these 70 individuals or companies, 13 regularly purchase timber sales from State Forests.

As the stumpage price chart in Appendix VIII indicates, prices for the hardwood species rose steadily until 2008. This rise in hardwood values promoted heavy cutting or "high grading" on many private forest lands in the region. Frequently, these practices remove the trees of highest value and quality 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 will increase as those high quality trees become increasingly scarce on private lands.

B. Biological Resources

Conservation of biological resources is increasingly a societal demand. There is heightened awareness about **old growth forests**, endangered plant and animal species and the ecological implications of a consumer society. Legislation such as the Endangered Species Act and National Environmental Policy Act (NEPA) have had a lasting effect on both resource management and public involvement in environmental decision making. The utilitarian value of such biological resources as trees for timber and fur bearing animals for pelts is coupled with the aesthetic, recreational and spiritual values associated with the non-human world. Public lands have emerged as important places for debating natural resource values. The demand and potential conflict over how best to manage these resources is expected to increase.

C. Recreational Resources

Results from a January 2003 public use survey revealed that wildlife/ nature observation and pleasure driving are the two most important recreational activities occurring on the Unit. These were followed by hunting, fishing, hiking, snowmobiling and cross country skiing. A majority of respondents visit State lands more than 16 days per year and most agreed that public recreation benefits local communities. There were 39 respondents to the survey with 70% residing within one of the five townships of German, McDonough, Pharsalia, Pitcher and Smithville. Survey results are summarized in Appendix XI.

Hunting licence sales are other indicators of regional demand for recreation. The demand for hunting as measured by license sales has declined 14% since 1985. This decline appears to be greatest among the increasing urban and suburban populations, while hunting among rural residents has remained constant. Resident New York State fishing license sales have decreased by 8% since 1992, however, the actual amount of time spent fishing by individual anglers has increased. Furthermore, based on New York angler surveys conducted in 1973, 1976, 1988 and 1996, the percentage of anglers interested in trout fishing has declined slightly over the years.

While license sales reveal declining participation, hunting and fishing on State lands may be increasing as a result of changes in regional land use. Parcelization and residential occupancy have restricted access onto private lands and it is speculated that "posting" of these properties has shifted hunting and fishing pressure onto State lands.

Registration from three State Forest cross country ski trails within the region indicates that use has remained relatively unchanged since 1988.

D. Mineral Resources

There is currently a broad societal demand for energy since the United States is the largest consumer of energy in the world. This demand is further amplified by the uncertainty of future availability of energy sources from other nations due to international conflict. Highly productive natural gas fields have recently been discovered in various locations in the Southern Tier of New York State; most notably beneath State forests in Steuben and Schuyler Counties. Similar productive natural gas fields exist in Chenango County.

Natural gas wells were drilled in the area during the mid 1960s through the mid 1970s. Department records indicate that eleven wells were drilled approximately 12 miles to the southeast in the Towns of Smithville and Greene. The Department recognizes this area as the Genegantslet natural gas field. All eleven wells are no longer producing gas. Approximately five miles west of the Genegantslet field, an additional three wells were drilled in Triangle Township, Broome County, resulting in the discovery of the Triangle natural gas field. Production from the this field is non commercial. In Guilford Township, Chenango, County Belden and Blake Corporation established a well that reached a total depth of 2,238 feet. The well was drilled, plugged and abandoned as a dry hole in 2003.

The closest commercial natural gas production is from the Bradley Brook Field approximately 20 miles to the north in Madison County. The Bradley Brook Field was discovered in 1999 in the Township of Lebanon and produces natural gas from bedrock 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*

As of 2004, there are no natural gas lease agreements pertaining to the mineral estate under State Forests on the Unit. However, due to recent drilling and production in western New York, the State may receive requests to nominate the mineral estate on the Unit for inclusion in future natural gas lease sales. There is currently no public demand for other mineral resources on the Unit. Stone and gravel utilized for State Forest projects are acquired from private quarries.

For additional information on the demand for mineral resources see Appendix XI: Geology and Mineral Resources.

III. Constraints on the Unit

The following factors pose limitations to activities or management decisions on the Unit.

A. Physical Constraints

Steep slopes - Areas of steep topography impede the location and development of trails.

Geologic properties - Geologic properties such as the depth to and type of bedrock, rock outcroppings, and the presence and location of natural gas resources influence management actions on the surface.

Soil characteristics - Soil properties such as drainage, depth, fertility and type have a large part in determining the vegetation characteristics of a site. They also determine the sensitivity of a site to erosion or other soil impacts caused by human use.

Density and placement of recreational trails or facilities - Recreational trails or facilities occupy their immediate ground space and influence the management of the surrounding areas of land. The areas of land occupied by these facilities also cannot be used for other purposes.

Potential insect and disease infestations - Forest insect or disease concerns may restrict the manner in which trees may be harvested or planted.

Limited access - Some portions of State forests are remote or may only be accessed by foot due to steep slopes, ravines, etc. In areas having limited access, it may not be possible to harvest timber, develop recreational trails or extract mineral resources.

Presence of cultural resources - Cultural resources such as sites having old foundations or cemeteries are important resources which are protected on State forests. Therefore, activities which may disturb or damage these sites cannot occur on the land they occupy.

Presence of county, town and state roads - The presence and condition of public roads determine the quality of access to State forests. Roads in poor condition restrict access. Highways restrict access due to safety concerns with vehicles traveling at high speeds.

Electrical transmission and telephone lines - Utility line corridors are maintained in an open condition and prevent the management of these areas for tree cover. Furthermore, the land occupied by these corridors is not available for many other uses. Depending upon one's viewpoint, these open areas may be viewed as an asset since they provide relatively scarce grassland conditions for species requiring such habitat.

Deeded rights-of-way - Deeded rights-of-way restrict activities because the State does not have exclusive control over these areas of land.

Buried telecommunication lines - Buried utility cables restrict activities where soil must be excavated such as access construction.

Natural gas collection and distribution lines - Buried gas lines restrict activities requiring soil excavation. If they are located off of existing roads and are maintained in an open condition, they may constrain the ability to manage for forest interior conditions.

Lack of contiguous arrangement of State land - Some areas of State forests are inaccessible due to common corners. In other cases, a State forest may be isolated and not linked to other areas of State land. In these cases, the arrangement of the State forests constrains long distance trail development.

B. Administrative Constraints

Inadequate budgets - Insufficient budgets may constrain any activity which requires the expenditure of funds.

Staffing shortages - During periods of staffing shortages, management activities that are not essential to the Departments' mission are not pursued.

Fluctuations in wood markets - The demand for wood products usually fluctuates over time. It may not be possible to commercially treat some forest stands during times when there is little demand for the product.

C. Societal Influences

Management decisions are grounded in human values. The strength of any plan is measured by the degree to which an informed public is willing and able to participate in the planning process. Efforts have been made to engage people in a dialogue about the future of the Five Streams Unit. Citizens, local government, forest workers, recreationalists, sportsmen and many others have participated in public programs designed to foster dialogue about forest management on the Five Stream Unit. While all comments and recommendations were considered, the degree to which they can be satisfied will vary.

D. Department Rules, Regulations and Laws

Appendix VI lists Department Rules, Regulation and Laws governing State forest management activities.

IV. Vision

Practice sustainable forestry to conserve biodiversity and enrich local community life.

Sustainable forestry is a strategy for meeting the natural resource needs of the present without compromising the similar capability of future generations. It is based on the principle that healthy forests are essential for the long term cultural and economic health of rural communities. Clean water, productive and accessible forests and diverse ecosystems support healthy and livable communities. The Five Streams plan is an effort to advance sustainable forestry for the benefit of both present and future generations.

Efforts to conserve **biodiversity** and support forest-based activities that strengthen the cultural and economic health of local communities are guided by specific forest management objectives. These efforts will draw on people with diverse skills and experience who can contribute to sustainable forestry in western Chenango County and enhance the overall economic and social well-being of the People of New York.

V. Goals & Objectives

A. Land Management

Land Management Goal

Conserve biodiversity in working forests.

Biodiversity is the sum total of all forms of life including genes, microbes, fungi, plants, animals and **ecosystems** (Hunter 1999). Working forests are lands managed for the production of commodities such as timber, firewood and natural gas.

Land management on the Unit will strive to integrate practices for conserving biodiversity with the production of timber and other natural resources. The Five Streams unit offers a unique opportunity to blend conservation of biodiversity with commodity production because it is a relatively large, unfragmented forest tract under single ownership.

The long-term maintenance of biodiversity on any ownership is a lofty goal. Further complicating such management is the influence of acid precipitation, climate change and invasive exotic species. Despite this, 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 Five Streams Unit.

Following Hunter (1999) and Lindenmayer&Franklin(2002), conserving biodiversity on the Unit is guided by five principles:

(1) Maintenance of landscape **connectivity** - An example of this is the protection of undisturbed **riparian** corridors 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.

Land Management Objectives

1. Manage 78 acres in a grass and shrubland condition

Grass and shrublands will be maintained to support wildlife species that use early successional habitats for food, nesting and cover. The limited extent of these habitats are located within a regional utility right of way, dikes and emergency spillways for three constructed ponds and a number of former homesites dominated by apple trees, hawthorn, viburnum, blueberry, sumac and other shrub species.

Grasslands will be mowed after July 15 to prevent establishment of trees and shrubs and to encourage nesting conditions suitable for grassland birds. Shrublands and orchards will be treated on a ten year schedule to remove trees that compete with apples and shrub species.

2. Manage 3,511 acres in an even aged forest condition

Even age **silviculture** is a system for maintaining and regenerating forest stands in which the trees are approximately the same age. Conifer plantations and regrown natural forests are typical examples of even aged stands. Intermediate harvests, such as thinnings and improvement cuts, will favor the retention of robust trees to support stand regeneration. Application of even age silviculture will focus on conversion of red pine plantations to native hardwood species, regeneration of Norway spruce and regeneration of shade intolerant hardwood species such as white ash and black cherry. Since red pine is poorly adapted to regeneration on the Units' soils, these plantations will most often be converted to native hardwood species. Norway spruce is adaptable to a wider range of soil conditions than red pine and therefore efforts will be made to perpetuate this species.

Rotation age is the time between stand establishment and final harvest. It occurs when mature trees are cut to establish growing conditions for a new stand**.** Rotation ages on the Unit range between 60 and 160 years. **Clearcutting, shelterwood** and **seedtree** methods for stand regeneration will be sequenced to optimize diversity of even aged conditions across the Unit and contribute to the management of grass and shrubland conditions on a temporary basis early in the rotation.

3. Manage 2,979 acres in an uneven aged forest condition

Uneven aged silviculture is a system for maintaining and regenerating forest stands with at least three distinct age classes. This system favors shade tolerant species such as sugar maple, hemlock and American beech and creates a stratified stand structure with trees of different heights represented in all levels of the forest canopy. Regeneration and control of uneven age stand structure will be accomplished using the individual tree selection system with periodic cuts favoring the retention of the most vigorous shade tolerant species in all age classes.

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. Where conditions allow, **crop trees** will be grown to a maximum diameter of 26".

The selection system will be applied to restrict canopy gaps to 1/4 acre. Gaps of this size and smaller will promote stand regeneration while maintaining an unfragmented canopy and interior forest conditions. Furthermore, skid lanes for removing logs will not exceed 12' in width and will be designed to maintain closed canopy conditions.

4. Harvest 1,041 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, 2003). 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 749 acres of uneven aged stands and 292 acre 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 more than 50% of **basal area** in native conifer, 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. 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/mound topography, steep slopes and other unique features will be favored for retention. Rotation in even age stands will be 160 years. Utilization of harvested trees will be restricted to a 10" top diameter and 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 current stand treatments and paint-marked at dbh.

5. Permit surface disturbance associated with natural gas exploration, production and development on 4,405 acres (46%) and exclude 5,229 acres (54%).

Article 23, Title 11, Section 23-1101 of the Environmental Conservation Law and State Finance Law authorizes the Department of Environmental Conservation to make leases on behalf of the State for exploration, production and development of oil and gas on State lands. Proposals to lease parcels of Department of Environmental Conservation regulated State lands for this purpose will be considered following public notice in the Environmental Notice Bulletin (ENB), and in local newspapers.

Initial title review indicates that the State owns the mineral estate under all State Forests within the Unit, with the qualification that the mineral reservation may exist and no expressed or implied warranty of title is being offered in this Plan.

Prior to leasing, a public meeting will be held to provide information about natural gas development specific to the Unit and receive comments. A 30-day public comment period will follow and the Department will consider all comments prior to making a decision. If the Department decides to pursue leasing, the site specific conditions for limiting impacts on natural resources encompassed in this plan will be drafted by land managers in coordination with Mineral Resource staff and incorporated into contract documents. These conditions will include but not be limited to criteria for site selection, mitigation of impacts and land reclamation upon completion of drilling. A number of factors are considered to determine the compatibility of surface disturbance associated with natural gas development including, but not limited to, proximity to wetlands, riparian areas, steep slopes, recreation areas, rare, threatened or endangered species, and other unique ecological communities. Sites to be excluded from drilling, production and surface occupancy are delineated in maps found in Appendix XIV: Site Assessment for Natural Gas Well Development.

Compatibility will be determined during the tract assessment process on a case by case basis. Individual tract proposal reviews for each forest within this Unit have been completed with determinations made regarding exclusion zones. Included in the appendix are maps depicting these areas. Any parcel designated for non-surface entry in the lease will no longer be subject to the review process detailed above due to the prohibition of surface disturbance(s). Exceptions to the tract assessments are possible if additional analysis, protective measures, new technology, or other issues warrant a change in compatibility status of an area.

Based on a density of one well pad per 320 accessible acres, a maximum of sixteen (16) well sites will be permitted for draining gas reserves on the Unit. Approval of a greater well pad density will only be considered with an additional environmental and site assessment and SEQR review. Each well site requires between one and two acres of cleared land to accommodate drilling equipment with additional space necessary for gathering lines, access roads and other infrastructure. Upon completion of drilling, well sites will be reclaimed to a condition consistent with the surrounding stand management objectives.

The process of locating well sites will be guided by stand management objectives. Options for well site locations will first consider areas in the Drill 1st category. Development of well sites in Drill 2nd areas will only be considered if Drill 1st sites are determined to be unsuitable for accessing gas reserves. This decision process for siting well pads will proceed likewise for areas in the Drill 3rd and Drill 4th categories. See maps in Appendix XIV: Site Assessment for Natural Gas Well Development for additional information.

Drill 1st are areas where native flora and soil profiles have been significantly impacted by clearing, tilling and other agricultural practices. Fields, shrublands and conifer plantations will be managed to perpetuate open and even-aged conditions through periodic mowing and clearcutting. Reclaimed site conditions in Drill 1st areas are compatible with existing soil profiles and open land stand management objectives.

Drill 2nd areas represent a more developed forest condition than Drill 1st areas. Soils have not been impacted by tilling and forests are dominated by native tree species. Stands will be managed to perpetuate even-aged conditions through clearcutting and clearcutting with retention of select trees and groves. Surface disturbances associated with drilling will change soil profiles but otherwise are compatible with stand management objectives.

Drill 3rd areas are uneven-aged stands that will be managed to perpetuate at least three age classes using an individual tree or group selection system. Soil profiles are undisturbed and forests are dominated by native species. Uneven-aged stands are distributed across the Unit to maximize landscape connectivity by maintaining a contiguous forest canopy. Surface disturbances associated with drilling will change soil profiles and create canopy openings larger than prescribed under uneven-aged management.

Drill 4th areas will be managed to perpetuate uneven-aged conditions while retaining trees, groves and other features that enhance biodiversity. Soil profiles are undisturbed and structural features such as uprooted trees, logs and other coarse woody debris will be retained to diversify surface conditions. Together with uneven-aged stands and exclusion zones, these stands are distributed to maximize landscape connectivity and the ecological conditions associated with contiguous forest canopy. Surface disturbances associated with drilling will change soil profiles and create canopy gaps larger than prescribed under uneven-aged management. Surface disturbances could also potentially impact retention features distributed within the stand. All other opportunities for extracting gas from the Unit will be exhausted before establishing well sites in Drill 4th stands.

Exclusion areas are managed for the environmental, cultural and recreational benefits associated with undeveloped land. Drilling is not consistent with management objectives in Exclusion areas. Drilling is not permitted on slopes greater than 15%.

Well Site Location	Acres	Management Objective
Drill 1st	**1,911**	**Grass, shrub, even-aged plantation**
Drill 2nd	**527**	**Even-aged natural hardwoods, even-aged variable retention**
Drill 3rd	**1,443**	**Uneven-aged**
Drill 4th	**524**	**Uneven-aged variable retention**
Exclusion	**5,229**	**Protection zones, late successional forests, ponds, road ROW and areas with >15% slope or within 250' of streams, water bodies and vernal pools.**

Once wells are drained of natural gas resources, they will be plugged and abandoned. Site reclamation in grass and shrubland will establish native vegetation consistent with surrounding cover types. Within six months of completion of drilling within even-aged, even-aged variable retention, uneven-aged and uneven-aged variable retention stands, or as dictated by season or planting conditions, well sites will be reforested with native species such that the area occupied by the gas well will not exceed 1/4 acre.

Soil profiles, grades and the composition and distribution of herbaceous plant species will be restored consistent with surrounding stand conditions. A site will be considered restored when re-established vegetation reaches heights 1/3 that of surrounding vegetation.

Access roads associated with well sites will be built to the standards of a Class B Public Forest Access Road with a travel surface of 14' and total cleared width not exceeding 46'. Upon completion of drilling, access roads will be closed and reclaimed to a condition capable of supporting both vegetation and periodic access to maintain the well site. Site restoration and long term access will be authorized by a Temporary Revocable Permit.

For the life of the plan, gas development on the Unit will not exceed a maximum of **sixteen** sites, unless the Department approves a drilling pad development plan submitted by the lessee that identifies a denser development spacing. Establishing more than sixteen wells will require a change to the Plan, and may require the UMP amendment process, including additional public meetings. Any number of well bores may be attempted from these sites. This spacing standard allows for the drainage of gas reserves without significant impact to surface conditions. The maximum surface disturbance at any well site will not exceed two acres unless otherwise approved by the Department.

The transportation of gas using distribution and collection lines (pipelines), and utility lines will be located adjacent to Public Forest Access Roads or the existing disturbed areas created to construct the well sites. Additional surface disturbance associated with such construction will be considered in areas other than uneven-aged and uneven-aged variable retention stands.

The lessee must comply with all policies and provisions of the ECL Rules and Regulations and all work associated with prospecting, drilling and laying of pipes must be approved by the Department in writing. A bonded Temporary Revocable Permit and Drilling Permit will be required before well pad development.

The Unit is not being considered for underground gas storage. However, if a proposal for gas storage is submitted to the Department, it may be considered as a separate lease. It will require a change to the Plan, and may precipitate the UMP amendment process, including additional public meetings. Any proposal for gas storage development must be consistent with the objectives of this Plan. Once wells are played out, they will be plugged and abandoned.

To ensure the compatibility with the natural resources objectives within the Plan, land managers will review and evaluate all proposals for surface disturbance associated with gas leasing. This will determine the suitability of these activities and will include a review of the well siting and drilling pad development plans, well site disturbance and the location of distribution, collection and utility lines.

At the time of leasing, a public information meeting will be scheduled. The purpose of the meeting will be to provide information about natural gas development specific to the Unit including the distribution of well sites, the duration of drilling activities and any necessary site restoration.

Requests to use State land to conduct geophysical (such as seismic survey), geochemical and/or surface sampling procedures will require a Temporary Revocable Permit (TRP). These procedures are necessary to determine the extent and distribution of natural gas fields. Pre-lease seismic testing using shot holes or geophases deployed off-road is not permitted. Permits for seismic testing will not be issued for un-leased state lands. If the property is subject to lease agreement, only the lessee, or parties authorized by the lessee, can be issued a TRP for these purposes.

For additional information on procurement of natural gas see Appendix XI: Geology and Mineral Resources.

6. Prohibit commercial extraction of minerals and/or rock (including salt) from the Unit.

Under Article 7 of the New York State Consolidated Laws, any citizen of the United States may apply for permission to explore and/or extract any mineral on State lands. At present, there are no mining contracts, permits or operations within the Five Streams Unit. Current Department policy is to decline any commercial mining application(s) pertaining to lands covered by this Unit Management Plan, as these activities are not compatible with the purposes for which Reforestation Areas were purchased. However, surface mining may be permitted if the Department deems it necessary for State Forest infrastructure purposes.

For additional information on extraction of minerals and rock see Appendix XI: Geology and Mineral Resources**.**

7. Manage 888 acres as late successional forests.

Late Successional forests are forests withdrawn from timber production, natural gas exploration and other direct human disturbances. Within these 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.

Late successional forest areas are a critical component of any effort to conserve biodiversity because they support ecological conditions separate 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 undisturbed areas. Late successional forest areas also provide important benchmarks 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, late successional forest areas will develop old growth forest characteristics, conditions that are relatively scarce within the larger rural landscape of Chenango, Cortland and Broome Counties. 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. Human intervention in these stands will be considered to protect forest health (ex. fire or invasive species management), restore or enhance significant habitats, or to explore or create regeneration opportunities for desired plant species.

8. Protect 2,001 acres of ponds, wetlands and riparian zones.

Ponds, **wetlands** and **riparian zones** 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 1990). The Five Streams Unit takes its

name from a network of wetlands and streams that together sustain a rich web of life on both the Unit and in many downstream communities. Water is the thread that links the Five Streams Unit with the larger Susquehanna drainage basin.

The management objective will ensure a clean supply of water, enhanced biodiversity and opportunities for water based recreation. Timber harvesting, gas well development and road construction are not permitted in wetland and riparian forests. These 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.

Balsam, Baker and Pucker Ponds were constructed to improve wildlife habitat and opportunities for water based recreation. Annual pond maintenance will include cleaning drop boxes, late season (after July 15) dike mowing and removing debris from trickle tubes and spillways.

9. Protect Jam Pond

Jam Pond is part of a unique black spruce and tamarack bog that supports a number of State listed rare plants. People trampling on the sphagnum mat that floats atop the pond has resulted in visible impacts to aquatic vegetation. Protection strategies will focus on public education and on-site signage restricting access onto the sphagnum mat.

10. Preserve cultural resources.

Cultural resources on the Unit offer clues about the historic relationship between people and nature. Farmsites, 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.

Cultural resources will be managed to preserve the integrity of individual sites such that the association between site features is not diminished. For example, the relationship between foundations, stone walls, garden plot and orchards provides evidence about a functioning farmstead. Activities that disrupt this integration decrease the accuracy of site interpretation and lessen our ability to learn about the past. Cultural resources 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, garden shrubs and other ornamental plants associated with cultural sites will not be harvested and efforts will be made to sustain non-invasive vegetation through thinning and pruning.

Twenty-three sites of cultural significance have been inventoried and specific management strategies will be developed to ensure long term preservation. Any archeological research conducted on the Unit will require a permit issued through the State Museum and the Agency Preservation Officer.

11. Protect 131 acres of steep slopes and inaccessible sites

Timber harvesting and gas drilling will not be permitted on steep slopes because the terrain is extremely vulnerable to soil erosion. Sites having conditions suitable for harvesting and drilling are designated inaccessible if riparian, wetland and other protection zones will be impacted as a result of these activities or if the costs of establishing access outweighs the benefits derived from timber harvesting and mineral extraction.

12. Protect 16 acres for visual quality and recreation.

Timber harvesting, gas drilling and other planned disturbances are inconsistent with efforts to enhance an aesthetic experience.

Select viewsheds will be managed to preserve conditions that enhance the visual quality of a landscape or a particular site. Recreational sites will be managed to provide relief from the built environment and to preserve conditions associated with undeveloped nature.

13. Evaluate current stream conditions and revise classification.

DEC Bureau of fisheries will, as time and staffing allow, review the stream classification of waters in the vicinity of the Unit and upgrade designation based upon new field data collected. Current stream classifications are outdated and stream quality has changed since the original designation. Updated stream classification based upon current data will improve the protection of waters on and in the vicinity of the Unit.

B. Public Use and Recreation

Public Use and Recreation Goal

To provide quality recreation opportunities compatible with the Unit, improve public awareness of State Forest features while protecting natural resources.

State forests within the Five Streams Unit are part of the Draft Region 7 Recreation Master Plan. The Recreation Master Plan conveys guidelines for recreational development on State Forests throughout the region. In general, 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 lands do not pay admission fees, and limited facility development and associated construction and maintenance costs are consistent with this principle.

There are three components to the public use and recreation section of this plan:

- Maintaining and enhancing public access
- Maintaining and enhancing recreational opportunities and facilities
- Providing educational opportunities

The above guidelines and principle will be used to determine the extent of development and type of facilities. Numerous other factors influence the placement or expansion of facilities on this Unit. These influences include public safety issues, accessibility, aesthetics, fiscal constraints and recreational opportunities beyond the boundaries of the Unit.

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 the use of public accommodations. Title II of the ADA applies to the Department and requires, in part, that reasonable modifications must be made to its services and programs, so that when those services and programs are viewed in their entirety, they are readily accessible to and usable by people with disabilities. This must be accomplished unless such modification would result in a fundamental alteration in the nature of the service, program or activity or an undue financial or administrative burden to the Department. Since recreation is an acknowledged program of the Department, and there are services and activities associated with that program, the Department has the mandated obligation to comply with the ADA, Title II and ADA Accessibility Guidelines, as well as Section 504 of the Rehabilitation Act. See Appendix IX for additional information on ADA.

Public Use and Recreation Objectives

1a. Reconstruct dam and emergency spillway at Baker Pond.

Beaver activity and illegal vehicle access have compromised the integrity of Baker Pond dam and emergency spillway. Trapping and depletion of preferred vegetation have diminished beaver populations and the installation of barriers along North End Road has reduced vehicle access. Reconstruction will entail replacing the dropbox and sluice pipe, grading and seeding the dam and emergency spillway and resurfacing the access road.

1b. Improve access at Baker Pond.

A wildlife viewing site will be constructed adjacent to Baker Pond using soil and crushed stone. The site will have seating and a picnic table and be accessed by a 100' trail from a new parking area. The parking area, trail and viewing site will be accessible to people with disabilities. A gate will be installed to restrict vehicle travel beyond the parking area while at the same time providing access for dam maintenance.

2a. Construct a 0.75 mile motorized access trail for people with disabilities (CP-3).

A new trail for individuals with a qualifying disability will be constructed on Balsam Swamp State Forest. Trail head parking will be located adjacent to County Route 7 and the trail will proceed west through a diversity of habitats. This trail will be constructed to ensure that all people have the

opportunity to enjoy the benefits of State forests. A sign with rules, regulations and map will be installed at the trailhead parking site.

A trail currently designated for motorized access for people with disabilities on Red Brook State Forest will be closed due to lack of suitable parking, poor drainage and its proximity to private land.

2b. Prohibit use of all terrain vehicles (ATVs) on the Unit.

Public ATV riding is not a designated use on State forests (NYSDEC 2005). Public ATV use is only to provide access for recognized recreational activities such as hunting, fishing, camping, trapping or wildlife observation.

Public use of ATVs is not permitted outside of the proposed CP-3 trail. Public ATV riding is not compatible with the goal of protecting the Units' natural and cultural resources. The network of wetlands, creeks and tributary streams that occupy the Unit would be adversely impacted by ATV use. The predominant soil types on the Unit are poorly drained and ATV trail development would be costly to establish and maintain. Current illegal ATV use on the Unit has resulted in soil erosion, stream sedimentation, damage to trees and other vegetation and impacts to cultural resources. Currently there are no public ATV trails on lands adjacent to the Unit. Furthermore town boards in German and Smithville, where the majority of the Unit is located, have passed resolutions prohibiting the use of ATVs on town roads.

3. Install a sign at the edge of Jam Pond to educate people to keep off the fragile floating mat of sphagnum moss.

The sign will describe the unique plant community at Jam Pond and list rules and regulations developed to protect the site.

4. Improve access into Pucker Pond.

The access road to the Pond has sections of standing water caused by vehicle use on poorly drained soils. This road will be rehabilitated by improving drainage and raising the grade with gravel fill. A parking area will be established at the end of the road and a gate will be installed to restrict vehicle access onto the dam.

5a. Construct three information kiosks on the Unit.

One **kiosk** will be located at the Balsam Pond Campground, another along County Route 2 on Red Brook State Forest, and the third on County Route 5 on Five Streams State Forest. These kiosks will include a map of the Unit showing recreational facilities and a list of rules and regulations for the appropriate use of the State forests. The kiosk at Balsam Pond will also include information about boating, fishing, camping and local services.

In addition to kiosks, Unit maps will be made available to local towns for posting on community bulletin boards.

5b. Produce a Visitors Guide.

The guide will have a map and information about the Five Streams Unit including its' history, ecology, public use facilities and applicable rules and regulations.

6a. Improve shore fishing at Balsam Pond.

The existing shore fishing site is a narrow, earthen peninsula located just north of the boat launch. The peninsula will be widened and an extension constructed to create an "L" shaped fishing site. The site will be surfaced with crushed stone or other material suitable for establishing access for people with disabilities. One accessible parking site will be designated adjacent to the boat launch and fishing site.

6b. Improve fishing opportunities at Balsam Pond.

The area west of the shore fishing site will be excavated to deepen the water and attract pan fish. Stumps will be installed to provide submerged structure and improve the fishery. All excavation work will be accomplished after the pond level is lowered.

6c. Improve the boat launch at Balsam Pond.

The slope of the boat launch is very shallow, such that vehicles are surrounded by water by the time a trailer is at a sufficient depth to launch a boat. Improvements will increase the slope of the launching ramp using a reinforced concrete push slab. An accessible boat dock will be constructed as a feature of the shore fishing improvement to assist in launching and landing boats. In addition to the accessible parking site identified in Objective 6a, five or six parking sites will be designated to service the launch, including two sites currently used for camping.

6d. Prohibit gas powered motors greater than 25 horsepower on Balsam Pond.

Boats with large, high powered motors are not appropriate for use on Balsam Pond due to the relatively small size of the pond, the tranquil character of the area and the numerous submerged stumps which present a boating hazard. Electric motors are encouraged.

6e. Redesign the Balsam Pond Campground.

Four existing campsites will be eliminated. Six new campsites will be established along a new 0.3 mile loop road to be constructed north of the existing access road. One existing privy will be eliminated and replaced with a rented sanitary facility that will be installed along the access road and maintained under contract on a seasonal basis. A parking site will be constructed adjacent to the rented sanitary facility to provide access for campers and service vehicles. The second existing privy will remain onsite and be open for winter use. Several campsites will be accessible to people with disabilities.

6f. Designate two primitive campsites near Balsam Pond dam.

These two existing sites will be formally designated for tent camping. Access is from an existing parking area on Balsam-Tyler Road and a 300 foot walk on a path across the emergency spillway.

7. Establish and maintain forest identification signs.

The two existing signs located on County Route 2 on Chenango RA#28 and County Route 5 on Chenango RA#19 are in poor condition and in need of repair. New signs will be installed along County Route 7 on Chenango RA#17, along Hollow Road on Chenango RA#32 and along Lake Road on Chenango RA#12.

8. Restrict illegal off-road vehicle use on the utility R.O.W. on Chenango RA#19.

This area is located between Burkholder Road and Skillman Road. The R.O.W. consists of a wide grassy swath with overhead power lines. The R.O.W. receives illegal off-road vehicle use from ATV riders. The vehicle use has resulted in ruts running up and down the hill causing soil erosion and impacting the Five Streams Creek. Gates and boulders, adjacent to each town road will be installed to restrict access. Water bars will be installed in this R.O.W. to minimize erosion and disturbed areas will be seeded with grass. The R.O.W. locations in the Unit will be signed to prohibit off-road vehicle use. All work will be undertaken in partnership with NYSEG and TEPPCO, the two firms that use the R.O.W. for utility transmission.

9. Acquire land from willing sellers to improve access, protect water quality, and enhance other attributes of the Unit.

Any acquisition of land will be from willing sellers and consistent with the guidelines set forth in New York State's Open Space Conservation Plan. Land acquisition will be undertaken to advance goals and objectives set forth in this plan including biodiversity conservation, watershed protection, enhanced recreational opportunities, improved access for forest management and the elimination of boundaries to consolidate ownership.

10. Designate and construct new snowmobile trails.

Contingent on German, Pitcher and McDonough Town Board approvals, a new snowmobile trail will be constructed to connect NYS Snowmobile Corridor Trail #2 with NYS Snowmobile Corridor Trail #2D. Sections of four town roads are proposed for use as new snowmobile trails.

Beginning on Corridor Trail #2 northeast of the intersection of Hollow and Nelson Roads, a new trail will proceed northwest through Five Streams State Forest to Pucker Street. The trail will follow Pucker Street to its intersection with Sportsmen's Lane where it will continue north through Five Streams State Forest to Shingle Street and its connection with Corridor Trail #2D. The section of Shingle Street/ Purple Hill Road east of Pheasant Farm Road will be designated as a snowmobile trail to connect Corridor trail #2D with the hamlet of McDonough. In addition to Hollow Road and Pucker Street, sections of Pheasant Farm/ Burdick Hill Roads and Shingle Street/ Purple Hill Road are proposed for designation as new snowmobile trails.

All trails will be maintained for safe travel while ensuring the protection of all natural and cultural resources through an existing Adopt-A-Natural Resource Agreement with Ridge Riders Snowmobile Club of Whitney Point New York.. Town Board approval will be secured by the Club prior to the start of new trail construction. Construction of the 1.8 miles of new trail located off-road will be the responsibility of the Club under conditions established with a Temporary

Revocable Permit (TRP). Trail construction and maintenance will comply with New York State Snowmobile Development Guidelines (NYS OPRHP,1995).

11. Designate and construct new hiking trails.

The trail is based on the Genny Green concept which is an effort to provide trail connections between State owned lands in Chenango, Madison, Cortland and Onondaga Counties (NYSDEC/NYSOPRHP 2006). The trail will link various natural, cultural and recreational sites on the Five Streams, Long Pond, McDonough and Pharsalia Woods Units. It will utilize approximately 41,000 acres of State forest in western Chenango County and provide a recreational corridor to link Balsam, Kopek, Whaley, and Long Ponds, two campgrounds, Pucker Marsh, Tarbell Farms , the CCC Historic Site and other sites with the Finger Lakes Trail.

The Five Streams segment of the trail will be approximately 16 miles in length with four miles over snowmobile or other existing trail, three miles over town road and nine miles requiring new construction. A shorter loop trail will use sections of the longer trail and be approximately 11 miles in length with three miles over existing trails, seven miles over town roads and 1.3 miles requiring new construction. Efforts will be made to recruit citizens, local government, school groups and other community-based organizations to assist in constructing and ultimately maintaining the trail through the Department's Adopt-A-Natural Resource Agreement.

C. Community Forestry

Community Forestry Goal

To strengthen participation of local people in forest management.

Community forestry is a participatory approach to forest management that seeks to build vibrant local economies while protecting and enhancing local forest ecosystems. By integrating ecological, social and economic strategies into a cohesive approach to forest management, community forestry gives local people both the opportunity and responsibility to participate with the Department in the management of forest resources and to enjoy the benefits of that responsibility. Community forestry builds on local knowledge about natural and cultural resources to plan and implement sustainable forestry practices. It seeks to foster greater awareness about local forest resources and to advance cooperative forest management.

Community Forestry Objectives

1. Conduct public programs to promote community involvement in forest management.

Engaging citizens, local government, schools, conservation organizations and other groups in a dialogue about forest management provides the necessary forum for advancing community forestry. Public programs could include guided walks, workshops, tree planting and other activities that strengthens local involvement in forest management.

2. Encourage participation in the Department's Adopt-A-Natural Resource program.

The Adopt-A-Natural Resource program is designed to encourage volunteer participation in State land management projects. This program has strengthened the role of citizens in planning and implementation of recreation and habitat improvement projects. Projects in need of adoption include recreational trail maintenance, research, documenting and preserving cultural sites and watershed restoration.

3. Encourage participation in Department's Cooperative Forest Management (CFM) program.

The Cooperative Forest Management program is designed to advise private landowners on sustainable forestry practices. DEC staff will provide forest management assistance for conserving natural resources while at the same time supporting forest-based economies. Silviculture and practices such as stream protection, trail design and habitat improvement provide benefits beyond the boundaries of individual properties. Furthermore, cooperation with, and between, forest landowners will allow for greater success in achieving landscape level management goals such as conserving biodiversity, protecting watershed quality and raising awareness about local forest conditions.

4. Increase dialogue with local government.

Town governments are critical to the success of community forestry efforts. They are the elected representatives of the people who live in rural communities throughout the Five Streams Unit. Strengthening communication between DEC and local government will ensure that issues of mutual concern are discussed and potential conflicts are identified before they reach an unmanageable level. Town board meetings provide an opportunity for DEC to both update local residents on forest management activities and to listen to issues of local concern.

VI. MANAGEMENT ACTION SCHEDULES

A. Table of Land Management Actions

The following table presents a 20-year schedule of planned management actions referenced by stand number and year of management. See Appendix XIV for corresponding maps.

Abbreviations or codes for the table are listed below:

CODE	MANAGEMENT DIRECTION	DEFINITION
AP	Apple	Apple trees
BR	Brush	Shrub species other than apple
E	Normal Rotation	100-120 year rotations for natural stands; variable rotation age for plantations
ES	Short Rotation	40-60 year rotations; pioneer hardwoods

CODE	MANAGEMENT DIRECTION	DEFINITION
EVR	Variable Retention	Principles of even aged silviculture applied while retaining individual or groups of trees in the harvested stand for the next rotation.
FNA	Future Late Succession	Existing plantation species will be harvested to eventually convert stand to native species. After full conversion to native species, stand will be managed as Late Succession.
GR	Grass	Non-woody species-burnable or mowable
NA	Late Succession	Forest area managed to grow to attain and sustain a climax condition.
PD	Pond	Constructed and natural occurring ponds.
U	Normal interval	20 year cutting interval
UVR	Variable Retention	Principles of uneven aged silviculture applied while retaining individual or groups of trees in the harvested stand. Retained trees will be allowed to grow to biological maturity.

CODE	PROTECTION AREAS
ZA	Inaccessible
ZF	Recreation areas
ZH	Historical
ZR	Riparian
ZS	Steep
ZV	Visual Aesthetics
ZW	Wetland

CODE	VEGETATION OR OBJECTIVE TYPES
AP	Apple
BF	Balsam Fir
Bucket	A variety of plantation species
BR	Shrub Land
GR	Grass, including other nonwoody species
Hem	Hemlock
JP	Jack Pine
LA	Larch - Japanese or European
NH	Northern Hardwoods
NS	Norway Spruce

CODE	VEGETATION OR OBJECTIVE TYPES
PD	Pond
PH	Pioneer Hardwoods, with aspen as the dominant species
PL	Planted conifers
RO	Red Oak
RP	Red Pine
RS	Red Spruce
SP	Scotch Pine
TAM	Tamarack
WC	White Cedar
Wet-A	Wetland-Alder
Wet-O	Wetland-Open
WP	White Pine
WS	White Spruce

CODE	TYPE OF TREATMENT	DEFINITION
FW	Firewood Thinning	A firewood only harvest.
GC	Clearcut	Overstory removal to favor early successional habitat.
GT	Green Tree Retention	The final conversion cut in a plantation with the retention of varying densities of overstory trees. The overstory is retained until the new age class of trees is commercially treatable.
IN	Integrated Treatment	A harvest of mostly low-grade timber with some sawtimber in a natural stand.
MO	Mow	Field mowing.
PT	Plant Trees	The establishment of a plantation.
PU	Spruce Thinning	Spruce harvest-pulp or sawtimber. The treatment might also include hardwoods.
RA	Release Apple	Treatment to release apples trees.
RC	Pine Conversion	Pine/larch harvest with conversion of the stand to a natural forest.
RE	Remove trees	Complete removal of overstory trees to favor grass or shrub types.
RT	Pine Thinning	Pine/larch stand that is thinned
SR	Spruce release	Removal of overstory trees to release understory spruce seedlings.
ST	Sawtimber Harvest	A harvest of mostly sawtimber trees in a natural stand.

CODE	TYPE OF TREATMENT	DEFINITION
TR	Pine Thin/Conversion	A combination treatment where a portion of a pine/larch/fir stand is thinned and another portion is converted to release hardwood seedlings or saplings.
TSI	Timber Stand Improvement	A non-commercial thinning in a plantation or natural stand.

TABLE HEADING DEFINITIONS

FOREST	Chenango Reforestation Area
SUB COMP	Forest stand sub compartment
STAND	Forest stand
VEG TYPE	Predominant vegetation cover
DBH	Average size of trees; seedling/sapling (ss), pole timber(pt), sawtimber(st)
OBJ TYPE	Objective vegetation cover type
MNGT DIR	Management direction
TREAT	Type of management treatment
TREAT YEAR	Scheduled year of treatment* (N) applies to stands that will not receive management treatment, or have management needs beyond 20 years.

*Note: All treatments for the years 2005, 2006 or 2007 have been completed or are in the process of completion. Treatments for 2008 have been begun, or are scheduled to begin within the next two years. Some delays in treatment have been experienced because of poor market conditions for hardwoods.

Management Action Schedule

Year of Management

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 12	A	1	39	NH	ST	NH	U	ST	2022
CHENANGO 12	A	2	7	NS	ST	NS-NH	E	PU	2015
CHENANGO 12	A	3	68	NS	ST	NS-NH	E	PU	2013
CHENANGO 12	A	4	4	NS-NH	ST	NH-NS	E	PU	2015
CHENANGO 12	A	5	21	NS	ST	NH-NS	E	PU	2015
CHENANGO 12	A	6	1	WET-A	-	BR	ZW	-	N
CHENANGO 12	A	7	5	NH-HEM	ST	NH-HEM	ZW	-	N
CHENANGO 12	A	8	8	NS	PT	NH	E	PU	2017
CHENANGO 12	A	9	27	NS	ST	NS-NH	E	PU	2017
CHENANGO 12	A	10	26	NS-SP	ST	NS-NH	E	PU	2015
CHENANGO 12	A	11	10	HEM-NH	ST	HEM-NH	ZW	-	N
CHENANGO 12	A	12	26	WET-O	-	GR	ZW	-	N
CHENANGO 12	A	13	15	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 12	A	14	44	NH	PT	NH	U	IN	2013
CHENANGO 12	A	15	30	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 12	A	16	5	NH	PT	NH	E	IN	2013
CHENANGO 12	A	17	9	NH	PT	NH-HEM	E	FW	2013
CHENANGO 12	A	18	15	WS	PT	NH	E	PU	2017
CHENANGO 12	A	19	10	WS-NH	PT	NH-WS	E	PU	2017
CHENANGO 12	A	20	10	WS	PT	WS-NH	ZW	-	N
CHENANGO 12	A	21	19	HEM-NH	ST	HEM-NH	ZW	-	N
CHENANGO 12	A	22	13	NH	PT	NH	U	-	N
CHENANGO 12	A	23	10	BR	-	NH	U	-	N
CHENANGO 12	A	24	11	NS	SS	NS	U	-	N
CHENANGO 12	A	25	24	NH	PT	NH	U	TSI	2013
CHENANGO 12	A	26	25	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 12	A	27	53	NS-NH	ST	NH-NS	EVR	PU	2015
CHENANGO 12	A	28	15	NS	ST	NS-NH	E	PU	2013
CHENANGO 12	A	29	9	NH	PT	NH	U	-	N
CHENANGO 12	A	30	3	HEM-NH	PT	HEM-NH	U	IN	2010
CHENANGO 12	A	31	22	NS	ST	NS-NH	E	PU	2019
CHENANGO 12	A	32	9	PH	SS	NH	U	-	N
CHENANGO 12	A	33	5	NH	PT	NH	U	IN	2010
CHENANGO 12	A	34	18	BR	-	BR	ZR	-	N

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 12	A	35	13	NH-WP	PT	WP-NH	U	IN	2015
CHENANGO 12	A	36	6	PH	PT	NH	ZW	-	N
CHENANGO 12	A	37	4	NS-NH	PT	NH	U	-	N
CHENANGO 12	A	38	2	NH	PT	NH	U	IN	2010
CHENANGO 12	A	39	5	BR	-	BR	ZH	-	N
CHENANGO 12	A	40	6	WET-O	-	WET-O	ZW	-	N
CHENANGO 12	A	41	7	BR	-	NH	U	-	N
CHENANGO 12	A	42	46	NH	ST	NH	U	ST	2015
CHENANGO 12	A	43	34	RP	ST	NH	EVR	RT	2005
CHENANGO 12	A	44	1	RP	ST	NH	ZR	-	N
CHENANGO 12	A	45	24	BR	-	BR	ZW	-	N
CHENANGO 12	A	46	9	NS	PT	NH-NS	UVR	-	N
CHENANGO 12	A	47	15	WET-A	-	WET-A	ZW	-	N
CHENANGO 12	A	48	9	NH	PT	NH	UVR	FW	2020
CHENANGO 12	A	49	2	BR	-	NH	ZA	-	N
CHENANGO 12	A	50	45	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 12	A	51	29	NH-HEM	ST	NH	U	IN	2014
CHENANGO 12	A	52	21	NH	PT	NH	U	FW	2014
CHENANGO 12	A	53	38	RP-JL	ST	NH	E	TR	2015
CHENANGO 12	A	54	27	RP-NS	ST	NH	E	RT	2015
CHENANGO 12	A	55	10	RP-JL	ST	NH-NS	E	RT	2015
CHENANGO 12	A	56	5	NS	ST	NS-NH	E	PU	2005
CHENANGO 12	A	57	14	NH	ST	NH	U	IN	2010
CHENANGO 12	A	58	2	NH-HEM	ST	NH-HEM	ZR	-	N
CHENANGO 12	A	59	4	NH	PT	NH	ZR	-	N
CHENANGO 12	A	60	9	NS	PT	NS-NH	E	PU	2005
CHENANGO 12	A	61	8	RP	ST	NH	E	RT	2018
CHENANGO 12	A	62	6	NS	SS	NS	UVR	-	0
CHENANGO 12	A	63	10	RP-NS	ST	NH	E	TR	2018
CHENANGO 12	A	64	4	NH-HEM	ST	NH-HEM	ZV	-	N
CHENANGO 12	A	65	3	NS-NH	ST	NH	ZH	-	N
CHENANGO 12	A	66	1	RP	PT	NH	U	RT	2010
CHENANGO 12	A	67	6	NH-NS	PT	NH	EVR	FW	2015
CHENANGO 12	A	68	3	NH-HEM	PT	NH-HEM	UVR	FW	2005
CHENANGO 12	A	69	1	BR	-	BR	ZH	-	N
CHENANGO 12	A	70	3	BR	-	NH	ZR	-	N
CHENANGO 12	A	71	7	WS-NH	PT	NH	E	TSI	2015

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 12	A	72	10	NH-HEM	ST	NH-HEM	UVR	ST	2015
CHENANGO 12	A	73	3	HEM-NH	ST	HEM-NH	ZW	-	N
CHENANGO 12	A	74	4	WS-NH	PT	NH-WS	ZR	-	N
CHENANGO 12	A	75	14	WS-NH	PT	NH-WS	E	PU	2005
CHENANGO 12	B	1	3	NH-BR	PT	NH-BR	ZH	RA	2005
CHENANGO 12	B	2	54	NH-WS	PT	NH	U	PU	2016
CHENANGO 12	B	3	14	NH	PT	NH	U	FW	2010
CHENANGO 12	B	4	6	WS-NH	PT	NH	U	TSI	2010
CHENANGO 12	B	5	17	NH-HEM	ST	NH-HEM	NA	-	N
CHENANGO 12	B	6	120	HEM-NH	ST	HEM-NH	NA	-	N
CHENANGO 12	B	7	21	NH	ST	NH	U	IN	2008
CHENANGO 12	B	8	4	NH-HEM	ST	NH-HEM	UVR	IN	2008
CHENANGO 12	B	9	7	PH	PT	PH	ZW	-	N
CHENANGO 12	B	10	13	WP	ST	WP-NH	UVR	RT	2018
CHENANGO 12	B	11	20	NH	ST	NH	U	IN	2008
CHENANGO 12	B	12	4	NS-SP	ST	NH	U	PU	2018
CHENANGO 12	B	13	11	WP	PT	WP-NH	UVR	RT	2018
CHENANGO 12	B	14	21	NH	ST	NH	U	IN	2008
CHENANGO 12	B	15	9	WET-O	-	WET-O	ZW	-	N
CHENANGO 12	B	16	3	RP	ST	NH	E	-	N
CHENANGO 12	B	17	17	RP	PT	NH	E	TSI	2018
CHENANGO 12	B	18	71	RP	ST	NH	E	RT	2008
CHENANGO 12	B	19	4	NH	PT	NH	ZW	-	N
CHENANGO 12	B	20	5	PH	PT	PH	ZW	-	N
CHENANGO 12	B	21	37	NH	ST	NH	U	IN	2008
CHENANGO 12	B	22	14	HEM-NH	ST	HEM-NH	UVR	IN	2008
CHENANGO 12	B	23	13	NS	ST	NS-NH	E	PU	2014
CHENANGO 12	B	24	6	NS-NH	ST	NS-NH	E	PU	2014
CHENANGO 12	B	25	2	NH	PT	NH	U	FW	2014
CHENANGO 12	B	26	4	NS	ST	NS-NH	E	PU	2014
CHENANGO 12	B	27	3	HEM-NH	ST	HEM-NH	NA	-	N
CHENANGO 12	B	28	2	NH	SS	NH	E	-	N
CHENANGO 12	B	29	10	WS-NH	PT	NH	E	PU	2020
CHENANGO 12	B	30	30	RP	ST	NH	E	RT	2020
CHENANGO 12	B	31	21	NH	PT	NH	U	FW	2018
CHENANGO 12	B	32	5	RP-NH	ST	NH	U	TR	2005
CHENANGO 12	B	33	11	PH	PT	PH	ZW	-	N

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 12	B	34	30	RP	ST	NH	E	TR	2005
CHENANGO 12	B	35	2	WS	PT	NH	E	PU	2005
CHENANGO 12	B	36	24	RP	ST	NH	U	TR	2005
CHENANGO 12	B	37	3	NH	ST	NH	E	IN	2008
CHENANGO 12	B	38	20	NS	ST	NS-NH	E	PU	2018
CHENANGO 12	B	39	21	NS-NH	ST	NH-NS	UVR	PU	2018
CHENANGO 12	B	40	3	WS-NH	PT	BF-WS	E	PU	2018
CHENANGO 12	B	41	22	NS	ST	NS-NH	E	PU	2018
CHENANGO 12	B	42	4	NH	PT	NH	E	FW	2011
CHENANGO 12	B	43	13	NS-NH	ST	NH	U	PU	2018
CHENANGO 12	B	44	7	NH	PT	NH	U	FW	2020
CHENANGO 12	B	45	39	NH	PT	NH	U	FW	2021
CHENANGO 12	B	46	22	NH	PT	NH	U	IN	2021
CHENANGO 12	B	47	5	NH	PT	NH	U	FW	2011
CHENANGO 12	B	48	2	NH	PT	NH	E	FW	2005
CHENANGO 12	B	49	1	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 12	B	50	2	RP	ST	NH	U	RC	2020
CHENANGO 12	B	51	3	WS-NH	PT	NH	E	PU	2020
CHENANGO 12	B	52	3	NH	ST	NH	ZR	-	0
CHENANGO 12	B	53	2	NS	PT	NH-NS	E	PU	2020
CHENANGO 12	B	54	3	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 12	B	55	6	BR-NH	-	BR-NH	ZW	-	N
CHENANGO 12	B	56	3	NH	ST	NH	U	FW	2005
CHENANGO 12	B	57	9	NH	PT	NH-HEM	UVR	FW	2010
CHENANGO 12	B	58	11	WS	PT	NH	U	PU	2016
CHENANGO 17	A	1	22	NS-NH	ST	NH-NS	E	PU	2010
CHENANGO 17	A	2	15	NS-RP	ST	NH-NS	U	RT	2016
CHENANGO 17	A	3	2	NH	PT	NH	U	IN	2016
CHENANGO 17	A	4	4	NH-RP	ST	NH	E	RC	2016
CHENANGO 17	A	5	14	NS-NH	ST	NH-NS	U	PU	2010
CHENANGO 17	A	6	6	NS-NH	PT	NH-NS	U	PU	2010
CHENANGO 17	A	7	4	NH-HEM	ST	NH-HEM	ZS	-	N
CHENANGO 17	A	8	9	NS-NH	PT	NH-NS	U	PU	2006
CHENANGO 17	A	9	7	HEM-NH	ST	HEM-NH	UVR	ST	2011
CHENANGO 17	A	10	9	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 17	A	11	1	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 17	A	12	4	HEM-NH	PT	HEM-NH	ZR	-	N

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 17	A	13	46	HEM-NH	PT	HEM-NH	UVR	IN	2011
CHENANGO 17	A	14	6	WC-NH	PT	WC-NH	NA	-	N
CHENANGO 17	A	15	9	BF-NH	PT	BF-NH	NA	-	N
CHENANGO 17	A	16	17	NS-NH	ST	NS-BF	U	PU	2014
CHENANGO 17	A	17	37	NH	ST	NH	U	ST	2011
CHENANGO 17	A	18	4	RO-NH	PT	RO-NH	U	IN	2011
CHENANGO 17	A	19	8	RO-WS	PT	RO-NH	U	IN	2011
CHENANGO 17	A	20	21	WS	PT	WS	NA	-	N
CHENANGO 17	A	21	7	RO-NH	ST	RO-NH	ZA	-	N
CHENANGO 17	A	22	12	NH	ST	NH	ZA	-	N
CHENANGO 17	A	23	41	HEM-NH	PT	HEM-NH	NA	-	N
CHENANGO 17	A	24	2	NH	PT	NH	U	IN	2022
CHENANGO 17	A	25	6	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 17	A	26	2	GR	-	GR	GR	RE	2005
CHENANGO 17	A	27	36	WS-NH	PT	NH/BR	EVR/BR	PU	2009
CHENANGO 17	A	28	2	AP	-	AP	AP	RA	2009
CHENANGO 17	A	29	1	NS-NH	PT	NS-RO	ZA	-	N
CHENANGO 17	A	30	1	BR	-	BR	ZW	-	N
CHENANGO 17	A	31	16	POND	-	PD	PD	-	N
CHENANGO 17	A	32	8	NS-RO	ST	NH-NS	U	PU	2017
CHENANGO 17	A	33	5	RO-NH	PT	NH-RO	U	TSI	2017
CHENANGO 17	A	34	1	RO-NH	PT	RO-NH	ZV	-	N
CHENANGO 17	A	35	8	PH	PT	PH	ES	GC	2007
CHENANGO 17	A	36	2	BR	-	BR	BR	-	N
CHENANGO 17	A	37	16	WS	PT	NH-WS	E	PU	2024
CHENANGO 17	A	38	1	AP	-	AP	ZH	-	N
CHENANGO 17	A	39	4	WS-NH	PT	PH	E	GC/PU	2024
CHENANGO 17	A	40	3	WP-WS	PT	WP-NH	UVR	PU	2024
CHENANGO 17	A	41	10	WET-A	-	WET-A	ZW	-	N
CHENANGO 17	A	42	6	WS-NH	PT	NH	U	PU	2024
CHENANGO 17	A	43	14	WS	PT	WS	U	-	N
CHENANGO 17	A	44	3	BR	-	BR	BR	-	N
CHENANGO 17	A	45	22	WS-NH	PT	NH-WS	UVR	PU	2024
CHENANGO 17	A	46	7	PH	PT	NH	E	TSI	2024
CHENANGO 17	A	47	28	WP-HEM	ST	WP-HEM	ZR	-	N
CHENANGO 17	A	48	6	NH-HEM	ST	HEM-NH	UVR	IN	2018
CHENANGO 17	A	49	29	WS	PT	NH-WS	E	PU	2016

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 17	A	50	3	WS-PH	PT	PH	ES	PU/GC	2016
CHENANGO 17	A	51	16	NS	ST	NS-NH	E	PU/SR	2007
CHENANGO 17	A	52	2	NS-NH	PT	NH	U	PU	2007
CHENANGO 17	A	53	28	NS-NH	ST	NH-NS	U	PU	2017
CHENANGO 17	A	54	2	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 17	A	55	5	NS	ST	NS-NH	E	PU	2017
CHENANGO 17	A	56	23	RP	ST	NH	E	RC	2008
CHENANGO 17	A	57	4	NH	ST	NH	E	ST	2008
CHENANGO 17	A	58	11	NH	PT	BR	BR	RE	2012
CHENANGO 17	A	59	24	NH	PT	NH	U	FW	2005
CHENANGO 17	A	60	5	WS	PT	WS-NH	UVR	-	N
CHENANGO 17	A	61	4	NH	ST	NH	EVR	IN	2011
CHENANGO 17	A	62	7	NH	PT	NH	EVR	TSI	2011
CHENANGO 17	A	63	1	WS-NH	PT	NH	EVR	FW	2011
CHENANGO 17	A	64	11	NH	PT	NH	E	IN	2012
CHENANGO 17	A	65	15	NH	ST	NH	U	IN	2012
CHENANGO 17	A	66	1	RP-NH	ST	NH	U	RC	2008
CHENANGO 17	A	67	12	HEM-NH	ST	HEM-NH	NA	-	N
CHENANGO 17	A	68	19	RP-NH	ST	NH	UVR	RT	2008
CHENANGO 17	A	69	13	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 17	A	70	10	RP-SP	ST	NH	UVR	GT	2008
CHENANGO 17	A	71	29	NH-HEM	ST	NH-HEM	UVR	IN	2012
CHENANGO 17	A	72	40	HEM-NH	ST	HEM-NH	NA	-	N
CHENANGO 17	A	73	15	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 17	A	74	12	NS-NH	ST	NS-NH	U	FW	2018
CHENANGO 17	A	75	15	HEM-NH	ST	HEM-NH	UVR	IN	2006
CHENANGO 17	A	76	22	WS-NH	PT	NH-WS	U	-	N
CHENANGO 17	B	1	24	RP-NH	PT	NH	EVR	RC	2006
CHENANGO 17	B	2	8	NH	PT	NH	E	IN	2016
CHENANGO 17	B	3	14	NH	ST	NH	U	IN	2016
CHENANGO 17	B	4	5	RP	SS	NH	E	-	N
CHENANGO 17	B	5	6	HEM-NH	ST	HEM-NH	ZW	-	N
CHENANGO 17	B	6	4	NS	PT	NH-NS	E	PU	2006
CHENANGO 17	B	7	34	NS-NH	PT	NH-NS	E	PU	2010
CHENANGO 17	B	8	19	NH	ST	NH	E	ST	2020
CHENANGO 17	B	9	6	HEM-NH	ST	HEM-NH	UVR	IN	2020
CHENANGO 17	B	10	30	NH	ST	NH	E	IN	2020

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 17	B	11	100	RP-NS	ST	PL	EVR	RT	2009
CHENANGO 17	B	12	3	WET-A	-	WET-A	ZW	-	N
CHENANGO 17	B	13	6	WET-O	-	WET-O	ZW	-	N
CHENANGO 17	B	14	13	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 17	B	15	83	NH	ST	NH	NA	-	N
CHENANGO 17	B	16	2	RP-NS	ST	NS-NH	ZR	-	N
CHENANGO 17	B	17	17	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 17	B	18	10	WET-O	-	WET-O	ZW	-	N
CHENANGO 17	B	19	6	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 17	B	20	23	NH	ST	NH	U	IN	2007
CHENANGO 17	B	21	9	BR	-	BR	ZW	-	N
CHENANGO 17	B	22	11	WS	PT	WS-NH	E	PU	2022
CHENANGO 17	B	23	3	NH	ST	NH	U	IN	2020
CHENANGO 17	B	24	11	RP-NS	ST	NH	E	RT	2011
CHENANGO 17	B	25	19	HEM-NH	ST	HEM-NH	ZW	-	N
CHENANGO 17	B	26	7	NH	PT	NH	U	-	N
CHENANGO 17	B	27	8	LA	ST	NH	E	RT	2011
CHENANGO 17	B	28	9	NH-WS	PT	NH	E	FW	2022
CHENANGO 17	B	29	4	NH	ST	NH	E	FW	2014
CHENANGO 17	B	30	27	NH	ST	NH	E	IN	2014
CHENANGO 17	B	31	13	NH	SS	NH	E	-	N
CHENANGO 17	B	32	14	RP-NS	ST	NH	E	RT	2019
CHENANGO 17	B	33	2	NH	PT	NH	E	FW	2007
CHENANGO 17	B	34	32	RP	ST	NH	E	TR	2019
CHENANGO 17	B	35	1	NS	ST	NS-NH	ZR	-	N
CHENANGO 17	B	36	2	WET-A	-	BR	ZW	-	N
CHENANGO 17	B	37	4	RS	PT	RS	ZR	-	N
CHENANGO 17	B	38	8	NS	PT	NS-NH	UVR	PU	2007
CHENANGO 17	B	39	6	RP-NS	ST	NH	U	PU	2007
CHENANGO 17	B	40	20	NH	PT	NH	UVR	IN	2021
CHENANGO 17	B	41	2	HEM-NH	PT	HEM-NH	UVR	IN	2021
CHENANGO 17	B	42	26	NS	ST	NS-NH	E	PU	2011
CHENANGO 17	B	43	2	NH	PT	NH	U	FW	2007
CHENANGO 17	B	44	13	LA	ST	NH	E	RT	2022
CHENANGO 17	B	45	4	NH	PT	NH	U	FW	2016
CHENANGO 17	B	46	2	NS	PT	NH	UVR	PU	2011
CHENANGO 17	B	47	2	NH	PT	NH	E	-	N

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 17	B	48	6	NS-NH	PT	NH	UVR	PU	2011
CHENANGO 17	B	49	3	PH	SS	BR-AP	BR-AP	RA	2011
CHENANGO 17	B	50	7	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 17	B	51	9	NH-RS	PT	NH-RS	UVR	-	N
CHENANGO 17	B	52	3	RP	PT	NH	E	TSI	2011
CHENANGO 17	B	53	13	HEM-NH	ST	HEM-NH	ZW	-	N
CHENANGO 17	B	54	37	NH	PT	RS-NH	UVR	-	N
CHENANGO 17	B	55	20	RP	PT	NH	E	TSI	2009
CHENANGO 17	B	56	3	WET-A	-	BR	ZW	-	N
CHENANGO 17	B	57	52	NH-HEM	ST	NH-HEM	UVR	IN	2009
CHENANGO 17	B	58	9	NH	ST	NH	E	FW	2009
CHENANGO 17	B	59	34	PD	-	PD	PD	-	N
CHENANGO 19	A	1	12	NS	ST	NS-NH	E	PU	2019
CHENANGO 19	A	2	16	PH	PT	PH	ZW	-	N
CHENANGO 19	A	3	27	NS	ST	NS-NH	E	PU	2020
CHENANGO 19	A	4	4	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	A	5	28	NS	PT	NH-NS	U	PU	2020
CHENANGO 19	A	6	5	NS	PT	NS-NH	E	PU	2020
CHENANGO 19	A	7	7	NS	PT	NS-NH	E	PU	2020
CHENANGO 19	A	8	2	NH	ST	NH	U	-	N
CHENANGO 19	A	9	6	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	A	10	31	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	A	11	5	WET-A	-	WET-A	ZR	-	N
CHENANGO 19	A	12	5	NS	ST	NS-NH	E	PU	2021
CHENANGO 19	A	13	60	NS	ST	NS-NH	E	PU	2021
CHENANGO 19	A	14	3	GR	-	GR	ZH	-	N
CHENANGO 19	A	15	21	NH	ST	NH	U	IN	2006
CHENANGO 19	A	16	2	NH	PT	NH-NS	U	IN	2006
CHENANGO 19	A	17	3	NH	PT	NH	U	FW	2019
CHENANGO 19	A	18	39	NS	PT	NS-NH	E	PU	2009
CHENANGO 19	A	19	5	NS	PT	NS-NH	E	PU	2012
CHENANGO 19	A	20	38	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 19	A	21	10	WS	PT	WS	E	-	N
CHENANGO 19	A	22	5	NS	ST	NS-NH	E	PU	2012
CHENANGO 19	A	23	3	WET-O	-	WET-O	ZR	-	N
CHENANGO 19	A	24	5	NS	PT	NS-NH	E	PU	2012
CHENANGO 19	A	25	15	NS-NH	PT	NS-NH	E	PU	2012

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 19	A	26	6	NH	ST	NH	U	ST	2023
CHENANGO 19	A	27	18	NS	PT	NS-NH	E	PU	2012
CHENANGO 19	A	28	12	NH-HEM	PT	NH-HEM	ZR	-	N
CHENANGO 19	A	29	27	NH	ST	NH	U	IN	2023
CHENANGO 19	A	30	68	NH	ST	NH	U	ST	2023
CHENANGO 19	A	31	16	NS-NH	PT	NH	ZW	-	N
CHENANGO 19	A	32	9	WET-O	-	GR	ZW	-	N
CHENANGO 19	A	33	24	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	A	34	9	HEM-NH	SS	HEM-NH	ZW	-	N
CHENANGO 19	A	35	42	NH-GR	ST	NH-WP	U	PT	N
CHENANGO 19	A	36	3	NH	PT	NH	U	-	N
CHENANGO 19	A	37	2	NH	PT	NH	U	IN	2023
CHENANGO 19	A	38	20	NS	PT	NS-NH	U	PU	2006
CHENANGO 19	A	39	2	NH	PT	NH	U	FW	2006
CHENANGO 19	A	40	5	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	A	41	13	NH	ST	NH	U	IN	2009
CHENANGO 19	A	42	1	GR	-	GR	ZH	-	N
CHENANGO 19	B	1	21	NH	PT	NH-NS	U	IN	2019
CHENANGO 19	B	2	12	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	B	3	3	NH	ST	NH	NA	-	N
CHENANGO 19	B	4	12	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	B	5	3	PH-BR	PT	PH-BR	ZW	-	N
CHENANGO 19	B	6	2	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	B	7	11	NH-HEM	PT	NH-HEM	NA	-	N
CHENANGO 19	B	8	59	NH	ST	NH	NA	-	N
CHENANGO 19	B	9	5	NH	SS	NH	U	-	N
CHENANGO 19	B	10	24	NH-HEM	PT	NH-HEM	ZW	-	N
CHENANGO 19	B	11	21	RP	PT	NH	FNA	RT	2022
CHENANGO 19	B	12	1	WET-A	-	WET-A	ZW	-	N
CHENANGO 19	B	13	37	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 19	B	14	5	NH	PT	NH	NA	-	N
CHENANGO 19	B	15	30	NS-WP	PT	WP-NS	NA	-	N
CHENANGO 19	B	16	61	NH	PT	NH	NA	-	N
CHENANGO 19	B	17	12	WP-NS	PT	WP-NH	NA	-	N
CHENANGO 19	B	18	137	NH	PT	NH	NA	-	NN
CHENANGO 19	B	19	15	NS-WP	PT	WP-NH	NA	-	N
CHENANGO 19	B	20	3	HEM-NH	PT	HEM-NH	NA	-	N

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 19	B	21	7	HEM-NH	ST	HEM-NH	NA	-	N
CHENANGO 19	B	22	10	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	B	23	3	WET-O	-	WET-O	ZW	-	N
CHENANGO 19	B	24	21	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 19	B	25	34	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	B	26	30	HEM-NH	SS	HEM-NH	ZW	-	N
CHENANGO 19	B	27	22	NH	PT	NH	NA	-	N
CHENANGO 19	B	28	7	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 19	B	29	3	NS	PT	NH	NA	-	N
CHENANGO 19	B	30	3	WP-NH	ST	WP-NH	NA	-	N
CHENANGO 19	B	31	12	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	B	32	4	WET-A	-	BR	ZW	-	N
CHENANGO 19	B	33	6	NH	PT	NH	NA	-	N
CHENANGO 19	B	34	18	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	B	35	13	NS-WS	PT	NS-WS	NA	-	N
CHENANGO 19	B	36	5	PH-BR	-	PH-BR	NA	-	N
CHENANGO 19	B	37	5	PD	-	PD	PD	-	N
CHENANGO 19	B	38	24	TAM-RS	PT	TAM-RS	ZW	-	N
CHENANGO 19	B	39	21	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	B	40	3	WET-A	-	WET-A	ZW	-	N
CHENANGO 19	B	41	6	PH	PT	PH	ZW	-	N
CHENANGO 19	B	42	19	NH-BUCKET	ST	NH	NA	-	N
CHENANGO 19	B	43	6	NH-BUCKET	PT	HEM-NH	NA	-	N
CHENANGO 19	B	44	8	RO-LA	PT	HEM-NH	NA	-	N
CHENANGO 19	B	45	9	NH	PT	NH	NA	-	N
CHENANGO 19	B	46	24	LA-RO	ST	NH	NA	-	N
CHENANGO 19	B	47	5	NH	PT	NH	NA	-	N
CHENANGO 19	B	48	12	RP	PT	NH	U	RT	2005
CHENANGO 19	B	49	6	NH	PT	NH-WP	ZR	-	N
CHENANGO 19	B	50	13	LA-NH	ST	HEM-NH	NA	-	N
CHENANGO 19	B	51	4	NH-HEM	PT	HEM-NH	U	FW	2005
CHENANGO 19	B	52	4	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 19	B	53	11	BUCKET	PT	NS-HEM	NA	-	N
CHENANGO 19	B	54	11	RP	PT	NH	U	RT	2005
CHENANGO 19	B	55	8	NS	PT	NH	U	PU	2012
CHENANGO 19	C	1	1	WS	SS	WP-NH	ZR	-	N
CHENANGO 19	C	2	3	NH	SS	NH	ZR	-	N

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 19	C	3	4	WS	PT	NH	E	TSI	2005
CHENANGO 19	C	4	10	WS	PT	NH-WP	E	-	N
CHENANGO 19	C	5	2	WS-NH	PT	NH-WS	ZR	-	N
CHENANGO 19	C	6	10	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 19	C	7	8	NH	PT	NH	U	FW	2007
CHENANGO 19	C	8	14	RP	PT	NH	E	-	N
CHENANGO 19	C	9	8	HEM-NH	PT	HEM-NH	U	IN	2012
CHENANGO 19	C	10	2	WS	SS	WS	ZW	-	N
CHENANGO 19	C	11	64	WS	PT	NH	E	-	N
CHENANGO 19	C	12	3	NH	PT	NH	E	FW	2007
CHENANGO 19	C	13	12	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	C	14	8	WET-A	-	WET-A	ZW	-	N
CHENANGO 19	C	15	45	NH	PT	NH	U	IN	2005
CHENANGO 19	C	16	14	WS	PT	NH	U	PU	2011
CHENANGO 19	C	17	10	NS-NH	PT	NH	U	PU	2011
CHENANGO 19	C	18	8	NS-NH	PT	NH	E	PU	2011
CHENANGO 19	C	19	18	NS	PT	NS-NH	E	PU	2011
CHENANGO 19	C	20	5	LA-NS	ST	NH	E	RT	2012
CHENANGO 19	C	21	14	LA-NS	PT	NH	E	RT	2012
CHENANGO 19	C	22	20	NH	PT	NH	U	IN	2019
CHENANGO 19	C	23	7	WET-A	-	WET-A	ZW	-	N
CHENANGO 19	C	24	19	HEM-NH	PT	HEM-NH	NA	-	N
CHENANGO 19	C	25	4	RP	PT	NH	ZV	-	N
CHENANGO 19	C	26	22	LA-NS	ST	NH	U	PU	2012
CHENANGO 19	C	27	5	RP	PT	NH	U	RT	2008
CHENANGO 19	C	28	9	NS	PT	NS-NH	E	PU	2008
CHENANGO 19	C	29	2	NH	PT	NH	U	IN	2008
CHENANGO 19	C	30	2	NS	PT	NS-NH	U	PU	2008
CHENANGO 19	C	31	4	NH	PT	NH	ZA	-	N
CHENANGO 19	C	32	7	WS	PT	WS-NH	ZA	-	N
CHENANGO 19	C	33	36	WET-A	-	WET-A	ZW	-	N
CHENANGO 19	C	34	10	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	C	35	23	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	C	36	18	HEM-NH	PT	HEM-NH	U	IN	2012
CHENANGO 19	C	37	11	NH	PT	NH	U	IN	2012
CHENANGO 19	C	38	3	WET-O	-	WET-O	ZW	-	N
CHENANGO 19	C	39	19	NS	PT	NS-NH	E	PU	2018

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 19	C	40	2	HEM-WP	ST	HEM-WP	ZR	-	N
CHENANGO 19	C	41	2	NS	PT	NS-NH	ZR	-	N
CHENANGO 19	C	42	4	HEM	PT	HEM	ZR	-	N
CHENANGO 19	C	43	23	RP-NS	ST	NS-NH	E	PU/RT	2007
CHENANGO 19	C	44	6	NH-HEM	ST	NH-HEM	UVR	IN	2005
CHENANGO 19	C	45	40	RP-NS	PT	NH	E	RT	2010
CHENANGO 19	C	46	31	RP	PT	NH	E	RT	2010
CHENANGO 19	C	47	18	NH	ST	NH	U	IN	2010
CHENANGO 19	C	48	62	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	C	49	2	WET-A	-	WET-A	ZW	-	N
CHENANGO 19	C	50	19	RP-NS	PT	NH-NS	E	PU/RT	2006
CHENANGO 19	C	51	6	NS-LA	PT	NS-NH	E	PU	2006
CHENANGO 19	C	52	43	RP-NS	ST	NH	E	PU	2006
CHENANGO 19	C	53	2	NH-HEM	ST	HEM-NH	UVR	FW	2006
CHENANGO 19	C	54	10	RP	PT	NH	E	TR	2006
CHENANGO 19	C	55	9	NH	PT	NH	U	FW	2009
CHENANGO 19	C	56	4	RP-NS	PT	NH	ZW	-	N
CHENANGO 19	C	57	19	NS-RP	ST	NH	EVR	PU	2007
CHENANGO 19	C	58	7	HEM-NH	PT	HEM-NH	UVR	FW	2012
CHENANGO 19	C	59	7	PD	-	PD	PD	-	N
CHENANGO 19	C	60	52	NH	ST	NH	U	ST	2013
CHENANGO 19	C	61	7	LA-NS	ST	NH	U	RT	2012
CHENANGO 19	C	62	3	GR	-	GR	GR	-	N
CHENANGO 19	C	63	6	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	C	64	19	NH	ST	NH	U	IN	2017
CHENANGO 19	C	65	4	NH	ST	NH	U	IN	2007
CHENANGO 19	C	66	1	RP	PT	NH	U	RC	2008
CHENANGO 19	C	67	2	NH	PT	NH	U	FW	2008
CHENANGO 19	C	68	1	NH	PT	NH	ZR	-	N
CHENANGO 19	C	69	3	NH	PT	NH	E	-	N
CHENANGO 19	C	70	6	NH-HEM	ST	NH-HEM	UVR	-	N
CHENANGO 19	D	1	18	RP-NS	ST	NH	E	TR	2024
CHENANGO 19	D	2	9	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	D	3	8	RP-NS	PT	NH	UVR	RT	2007
CHENANGO 19	D	4	23	HEM	PT	HEM	ZR	-	N
CHENANGO 19	D	5	6	WET-A	-	WET-A	ZW	-	N
CHENANGO 19	D	6	8	WET-A	-	WET-A	ZR	-	N

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 19	D	7	16	RP-NS	ST	NH	E	RT	2024
CHENANGO 19	D	8	71	RP-NS	ST	NH	E	PU	2008
CHENANGO 19	D	9	3	NH	PT	NH	E	-	N
CHENANGO 19	D	10	67	RP-NS	ST	NH-NS	E	RT	2021
CHENANGO 19	D	11	2	PH-BR	PT	PH-APP	ZH	-	N
CHENANGO 19	D	12	6	NH	PT	NH	U	FW	2011
CHENANGO 19	D	13	17	NH	SS	NH	E	-	N
CHENANGO 19	D	14	12	NS-LA	PT	NH	E	PU	2012
CHENANGO 19	D	15	7	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 19	D	16	8	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 19	D	17	2	WET-A	-	WET-A	ZW	-	N
CHENANGO 19	D	18	8	GR	-	GR	GR	-	N
CHENANGO 19	D	19	43	RP	PT	NH	E	TR	2006
CHENANGO 19	D	20	4	NH	ST	NH	NA	-	N
CHENANGO 19	D	21	12	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	D	22	52	NS-NH	PT	NH	E	PU	2023
CHENANGO 19	D	23	22	NS-NH	PT	NH	E	PU	2023
CHENANGO 19	D	24	17	NH	PT	NH	U	FW	2019
CHENANGO 19	D	25	3	NS-NH	PT	NH	E	PU	2019
CHENANGO 19	D	26	10	GR	-	GR	GR	-	N
CHENANGO 19	D	27	28	HEM-NH	PT	HEM-NH	UVR	IN	2014
CHENANGO 19	D	28	12	NS	PT	NH	E	PU	2019
CHENANGO 19	D	29	12	NH	PT	NH	U	IN	2014
CHENANGO 19	D	30	4	NS-NH	PT	NH	E	PU	2019
CHENANGO 19	D	31	12	RP	PT	NH	E	RT	2013
CHENANGO 19	D	32	6	NH	PT	NH	E	FW	2010
CHENANGO 19	D	33	13	RP-NH	PT	NH	E	RT	2013
CHENANGO 19	D	34	6	GR	-	GR	GR	-	N
CHENANGO 19	D	35	11	RP	PT	NH	E	TR	2013
CHENANGO 19	D	36	6	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	D	37	16	NH	PT	NH	U	IN	2007
CHENANGO 19	D	38	3	RP	PT	NH	UVR	RT	2013
CHENANGO 19	D	39	9	NH	ST	NH	U	IN	2007
CHENANGO 19	D	40	65	RP-SP	PT	NH	E	TR	2011
CHENANGO 19	D	41	2	NH	ST	NH	U	IN	2011
CHENANGO 19	D	42	31	NH	PT	NH	U	-	N
CHENANGO 19	D	43	16	HEM-NH	PT	HEM-NH	ZR	-	N

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 19	D	44	10	WET-A	-	WET-A	ZR	-	N
CHENANGO 19	D	45	24	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 19	D	46	2	WET-A	-	WET-A	ZR	-	N
CHENANGO 19	D	47	37	RP	ST	NH	E	RT	2007
CHENANGO 19	D	48	14	NH	ST	NH	E	ST	2017
CHENANGO 19	D	49	19	NH	SS	NH	E	-	N
CHENANGO 19	D	50	13	NH	PT	NH	U	FW	2021
CHENANGO 19	D	51	15	NH	PT	NH	U	IN	2021
CHENANGO 19	D	52	30	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	D	53	7	NH	SS	NH	ZW	-	N
CHENANGO 19	D	54	8	NH	PT	NH	U	FW	2012
CHENANGO 19	D	55	3	NH	PT	NH	U	FW	2012
CHENANGO 19	D	56	15	NH	PT	NH	U	FW	2016
CHENANGO 19	D	57	15	NH	PT	NH	E	FW	2012
CHENANGO 19	D	58	3	NH-WS	PT	NH	E	-	N
CHENANGO 19	D	59	17	WS-NH	PT	NH	E	-	N
CHENANGO 19	D	60	18	RP	PT	NH	E	RT	2021
CHENANGO 19	D	61	27	NH	PT	NH	E	-	N
CHENANGO 19	D	62	21	NH	PT	NH	ZS	-	N
CHENANGO 19	D	63	27	RP	PT	NH	E	TSI	2008
CHENANGO 19	D	64	3	GR	-	GR	ZH	MO	2010
CHENANGO 19	D	65	20	RP	PT	NH	U	TSI	2010
CHENANGO 19	D	66	13	NH	SS	NH	NA	-	N
CHENANGO 19	D	67	6	BR	-	BR	ZH	-	N
CHENANGO 19	D	68	6	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 19	D	69	18	HEM-NH	ST	HEM-NH	NA	-	N
CHENANGO 19	D	70	30	PH	SS	PH	ZR	-	N
CHENANGO 19	D	71	15	NH	ST	NH	NA	-	N
CHENANGO 19	D	72	18	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 19	D	73	2	BR	-	BR	BR	RE	2011
CHENANGO 19	D	74	3	NH	PT	NH	E	FW	2013
CHENANGO 19	D	75	4	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 28	A	1	4	NH-HEM	PT	HEM-NH	UVR	FW	2007
CHENANGO 28	A	2	12	HEM-NH	ST	HEM-NH	UVR	IN	2010
CHENANGO 28	A	3	20	WS	PT	NH-WS	U	PU	2007
CHENANGO 28	A	4	36	RP-NS	ST	NH	E	RT	2017
CHENANGO 28	A	5	11	NH	ST	NH	U	IN	2010

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 28	A	6	32	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 28	A	7	5	NH-HEM	PT	HEM-NH	UVR	FW	2010
CHENANGO 28	A	8	14	HEM-NH	PT	HEM-NH	UVR	-	N
CHENANGO 28	A	9	52	RP	ST	NH-NS	E	RT	2013
CHENANGO 28	A	10	15	NH-HEM	ST	NH-HEM	UVR	ST	2015
CHENANGO 28	A	11	3	NH-HEM	PT	NH-HEM	ZW	-	N
CHENANGO 28	A	12	24	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 28	A	13	20	NH-HEM	ST	HEM-NH	UVR	IN	2019
CHENANGO 28	A	14	6	RP	ST	NH	U	RT	2023
CHENANGO 28	A	15	30	NH	PT	NH	U	-	N
CHENANGO 28	A	16	3	NH-BR	PT	NH-BR	E	TSI	2023
CHENANGO 28	A	17	8	NH	PT	NH	E	FW	2015
CHENANGO 28	A	18	11	NH	PT	NH	U	IN	2012
CHENANGO 28	A	19	46	RP-NH	ST	NH	U	TR	2012
CHENANGO 28	A	20	4	NH	PT	NH	U	FW	2017
CHENANGO 28	A	21	16	NH-HEM	PT	NH	U	IN	2017
CHENANGO 28	A	22	22	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 28	A	23	2	NH	ST	NH	U	IN	2018
CHENANGO 28	A	24	8	EL	ST	NH	U	RT	2018
CHENANGO 28	A	25	3	NH-HEM	PT	NH-HEM	UVR	FW	2010
CHENANGO 28	A	26	2	NH	ST	NH	ZH	-	N
CHENANGO 28	A	27	7	NH	PT	NH	U	FW	2014
CHENANGO 28	A	28	4	HEM-NH	ST	HEM-NH	UVR	IN	2019
CHENANGO 28	A	29	63	RP	ST	NH-NS	E	RT	2014
CHENANGO 28	A	30	1	BR	-	BR	ZW	-	N
CHENANGO 28	A	31	3	RP-NS	ST	NH	ZR	-	N
CHENANGO 28	A	32	114	RP-NS	ST	NH	E	RT	2023
CHENANGO 32	A	1	30	HEM-NH	ST	HEM-NH	ZR	-	N
CHENANGO 32	A	2	10	NH	SS	NH	E	-	N
CHENANGO 32	A	3	12	JP-NH	PT	NH	E	IN	2019
CHENANGO 32	A	4	3	NH	PT	NH	E	FW	2019
CHENANGO 32	A	5	9	NS	PT	NS-NH	E	PU	2007
CHENANGO 32	A	6	11	WET-A	-	BR	ZW	-	N
CHENANGO 32	A	7	4	NH	PT	NH	ZR	-	N
CHENANGO 32	A	8	5	WS	PT	WS-NH	ZR	-	N
CHENANGO 32	A	9	10	NH	PT	NH	ZR	-	N
CHENANGO 32	A	10	5	NS-PH	PT	NS-NH	E	PU	2007

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 32	A	11	16	WS-NH	ST	NH-WS	E	PU	2021
CHENANGO 32	A	12	24	HEM-NH	PT	HEM-NH	UVR	IN	2022
CHENANGO 32	A	13	66	NH	ST	NH	U	IN	2022
CHENANGO 32	A	14	15	NH	ST	NH	U	IN	2009
CHENANGO 32	A	15	8	HEM-NH	PT	HEM-NH	UVR	FW	2009
CHENANGO 32	A	16	21	NH	PT	NH	E	FW	2009
CHENANGO 32	A	17	10	NS	PT	NS-NH	E	PU	2005
CHENANGO 32	A	18	8	RP-PH	SS	RP-NH	E	TSI	2022
CHENANGO 32	A	19	7	WS-NS	PT	NS-NH	U	PU	2007
CHENANGO 32	A	20	4	NH-WS	PT	NH	E	FW	2020
CHENANGO 32	A	21	10	RP	SS	RP	E	-	N
CHENANGO 32	A	22	7	NH	PT	NH	U	-	N
CHENANGO 32	A	23	8	PH	PT	NH	U	IN	2024
CHENANGO 32	A	24	31	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 32	A	26	11	NS	PT	NH	U	PU	2014
CHENANGO 32	A	27	15	NH	PT	NH	E	FW	2014
CHENANGO 32	A	28	36	NS	PT	NS-NH	E	PU	2014
CHENANGO 32	A	29	11	NH	PT	NH	E	FW	2016
CHENANGO 32	A	30	28	NH-HEM	PT	HEM-NH	UVR	FW	2024
CHENANGO 32	A	31	12	WET-A	-	BR	ZW	-	N
CHENANGO 32	A	32	9	RP	PT	NH	U	RT	2016
CHENANGO 32	A	33	5	NH	PT	NH	E	FW	2016
CHENANGO 32	A	34	3	NH	ST	NH	E	-	N
CHENANGO 32	A	35	11	RP	PT	NH	E	RC	2016
CHENANGO 32	A	36	4	BR	-	BR	ZW	-	N
CHENANGO 32	A	37	18	NH	ST	NH	U	IN	2010
CHENANGO 32	A	38	1	AP	-	AP	BR	RA	2010
CHENANGO 32	A	39	25	NH	ST	NH	ZA	-	N
CHENANGO 32	A	40	25	NH-BR	-	BR	ZR	-	N
CHENANGO 32	A	41	2	NH	PT	NH	E	IN	2024
CHENANGO 32	A	42	7	LA	PT	NH	E	TSI	2017
CHENANGO 32	A	43	14	NH	PT	NH	E	IN	2024
CHENANGO 32	A	44	9	LA	PT	NH	E	RT	2017
CHENANGO 32	A	45	6	LA-NH	PT	NH	E	TSI	2017
CHENANGO 32	A	46	22	NH	PT	NH	E	FW	2007
CHENANGO 32	A	47	2	NS-LA	PT	NH	E	PU	2017
CHENANGO 32	A	48	27	NH	PT	NH	U	IN	2007

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 32	A	49	29	LA	PT	NH	ZA	-	N
CHENANGO 32	A	50	6	NH	PT	NH	ZA	-	N
CHENANGO 32	A	51	2	NH	PT	NH	ZR	-	N
CHENANGO 32	A	52	8	WS-NH	PT	NH	EVR	PU	2024
CHENANGO 32	A	53	11	AP	-	AP	BR	-	N
CHENANGO 32	A	54	9	WS-NH	SS	WS-NH	E	-	N
CHENANGO 32	A	55	4	NH	PT	NH	E	FW	2016
CHENANGO 32	A	56	10	NH-WS	PT	NH	E	-	N
CHENANGO 32	A	57	4	PH	SS	NH	E	-	N
CHENANGO 32	A	58	9	WS	SS	NH	E	-	N
CHENANGO 32	A	59	4	WS	SS	NH	E	-	N
CHENANGO 32	A	60	23	NH	PT	NH	E	FW	2016
CHENANGO 32	A	61	3	NH-SP	PT	NH	E	-	N
CHENANGO 32	A	62	14	NH	PT	NH	U	IN	2016
CHENANGO 32	A	63	1	PH	SS	PH	ES	-	N
CHENANGO 32	A	64	5	WS	SS	NH	E	-	N
CHENANGO 32	A	65	4	PH	PT	PH	ES	GC	2018
CHENANGO 32	A	66	3	NH	PT	NH	U	IN	2016
CHENANGO 32	A	67	1	WET-A	-	BR	ZR	-	N
CHENANGO 32	A	68	3	NS	PT	NH-NS	E	PU	2005
CHENANGO 32	A	69	2	HEM-NH	PT	HEM-NH	UVR	IN	2016
CHENANGO 32	A	70	4	NH	PT	NH	E	FW	2010
CHENANGO 32	A	71	3	NH	SS	NH	E	-	N
CHENANGO 32	A	72	15	RP	PT	NH	E	RT	2016
CHENANGO 32	A	73	1	PH-BR	PT	BR	ZH	-	N
CHENANGO 32	A	74	2	NH	PT	NH	E	FW	2016
CHENANGO 32	A	75	2	PH	PT	PH	ES	GC	2016
CHENANGO 32	A	76	1	PH	PT	BR	BR	RE	2010
CHENANGO 32	A	77	6	NH	PT	NH	U	FW	2010
CHENANGO 32	A	78	3	JL	PT	NH	E	TSI	2017
CHENANGO 32	A	79	2	NH	PT	NH	E	FW	2016
CHENANGO 32	A	80	5	WS	PT	NH	E	PU	2024
CHENANGO 32	A	81	4	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 32	A	82	1	NH	PT	NH	E	FW	2016
CHENANGO 32	A	83	2	WS	PT	NH	E	PU	2024
CHENANGO 32	A	84	6	NH	PT	PH	ES	GC	2010
CHENANGO 32	A	85	9	NH	ST	NH	U	IN	2019

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 32	A	86	3	GR	-	GR	GR	MO	2006
CHENANGO 32	A	87	2	BR	-	BR	BR	RE	2016
CHENANGO 32	A	88	1	NH	-	GR	GR	-	N
CHENANGO 32	A	89	4	NH	PT	NH	E	FW	2016
CHENANGO 32	A	90	5	NH	PT	NH	E	FW	2016
CHENANGO 34	A	1	11	NH-WP	PT	NH-WP	E	FW	2021
CHENANGO 34	A	2	34	HEM-NH	ST	HEM-NH	UVR	IN	2018
CHENANGO 34	A	3	2	NH	PT	NH	E	FW	2018
CHENANGO 34	A	4	124	POND	-	-	PD	-	N
CHENANGO 34	A	5	42	HEM-NH	ST	HEM-NH	UVR	IN	2006
CHENANGO 34	A	6	10	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 34	A	7	25	NH	ST	NH	U	IN	2006
CHENANGO 34	A	8	4	GR	-	HW	E	-	N
CHENANGO 34	A	9	2	NH	ST	NH	U	ST	2006
CHENANGO 34	A	10	5	NH-HEM	PT	NH-HEM	ZF	-	N
CHENANGO 34	A	11	14	NH	ST	NH	E	IN	2018
CHENANGO 34	A	12	57	NH	ST	NH	U	IN	2018
CHENANGO 34	A	13	23	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 34	A	14	5	WET-O	-	WET-O	ZW	-	N
CHENANGO 34	A	15	3	HEM-NH	PT	HEM-NH	ZW	-	N
CHENANGO 34	A	16	17	RP	PT	NH	E	TR	2016
CHENANGO 34	A	17	2	BR	-	BR	BR	-	N
CHENANGO 34	A	18	2	RP	PT	NH	E	RC	2016
CHENANGO 34	A	19	21	NH	ST	NH	U	IN	2020
CHENANGO 34	A	20	4	NH	PT	NH	ZW	-	N
CHENANGO 34	A	21	12	NS	ST	NH-NS	E	PU	2022
CHENANGO 34	A	22	68	NS	PT	NH-NS	E	PU	2022
CHENANGO 34	A	23	18	HEM-NH	PT	HEM-NH	UVR	ST	2020
CHENANGO 34	A	24	7	HEM-NH	ST	HEM-NH	UVR	IN	2024
CHENANGO 34	A	25	24	NH	ST	NH	U	IN	2024
CHENANGO 34	A	26	6	NH-HEM	PT	NH-HEM	ZR	-	N
CHENANGO 34	A	27	35	NH	PT	NH	E	FW	2024
CHENANGO 34	A	28	9	NS	PT	NS-NH	E	PU	2019
CHENANGO 34	A	29	18	NS	PT	NH-NS	E	PU	2019
CHENANGO 34	A	30	4	WET-A	-	WET-A	ZW	-	N
CHENANGO 34	A	31	13	NH	PT	NH	E	IN	2017
CHENANGO 34	A	32	52	HEM-NH	PT	HEM-NH	ZW	-	N

FOREST	SUB COMP	STAND	ACRES	VEG TYPE	DBH	OBJ TYPE	MNGT DIR	TREAT	TREAT YEAR
CHENANGO 34	A	33	3	WET-A	-	WET-A	ZW	-	N
CHENANGO 34	A	34	18	NH	ST	NH	E	IN	2017
CHENANGO 34	A	35	15	NS-NH	ST	NS-NH	E	PU	2019
CHENANGO 34	A	36	12	NS	ST	NS-NH	E	PU	2019
CHENANGO 34	A	37	10	NH	ST	NH-HEM	ZA	-	N
CHENANGO 34	A	38	21	HEM-NH	ST	HEM-NH	UVR	IN	2017
CHENANGO 34	A	39	13	HEM-NH	PT	HEM-NH	ZR	-	N
CHENANGO 34	A	40	17	NS	ST	NS-NH	E	PU	2024
CHENANGO 34	A	41	39	NS	PT	NS-NH	E	PU	2020
CHENANGO 34	A	42	10	NH	PT	NH	U	FW	2024
CHENANGO 34	A	43	11	HEM-NH	PT	HEM-NH	UVR	ST	2024
CHENANGO 34	A	44	2	WET-O	-	WET-O	ZW	-	N
CHENANGO 34	A	45	2	NH	SS	NH	E	-	N
CHENANGO 34	A	46	1	WS-RP	ST	NH	E	PU	2016
CHENANGO 34	A	47	5	PH	SS	NH/PH	E	-	N
CHENANGO 34	A	48	3	RP-WS	ST	NH-WS	E	RT	2016
CHENANGO 34	A	49	5	RP	PT	NH	E	TR	2016
CHENANGO 34	A	50	3	BR	-	BR	BR	RE	2016
CHENANGO 34	A	51	3	NH	PT	NH	E	FW	2017
CHENANGO 34	A	52	15	NS	PT	NS-NH	E	PU	2019
CHENANGO 34	A	53	9	NS	PT	NS-NH	E	PU	2019
CHENANGO 34	A	54	13	NH	PT	NH	U	FW	2017
CHENANGO 34	A	55	10	NH-BR	PT	NH	E	FW/PU	2020
CHENANGO 34	A	56	3	NH	PT	NH	U	FW	2020
CHENANGO 34	A	57	3	HEM-NH	ST	HEM-NH	ZF	-	N
CHENANGO 34	A	58	4	HEM-NH	ST	HEM-NH	UVR	IN	2006
CHENANGO 34	A	59	5	GR	-	GR	GR	MO	ANNUAL

B. Stand Treatment Schedule (Note: Stand treatments scheduled in 2005 and 2006 have been completed. Stands scheduled in 2007 and 2008 are in progress.)

The following stands are separated by year of anticipated treatment.

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2005	CHENANGO 12	A	43	34	RP	ST	NH	EL	RT
2005	CHENANGO 12	A	56	5	NS	ST	NS-NH	E	PU
2005	CHENANGO 12	A	60	9	NS	PT	NS-NH	E	PU
2005	CHENANGO 12	A	68	3	NH-HEM	PT	NH-HEM	UVR	FW
2005	CHENANGO 12	A	75	14	WS-NH	PT	NH-WS	E	PU
2005	CHENANGO 12	B	1	3	NH-BR	PT	NH-BR	ZH	RA
2005	CHENANGO 12	B	32	5	RP-NH	ST	NH	U	TR
2005	CHENANGO 12	B	34	30	RP	ST	NH	E	TR
2005	CHENANGO 12	B	35	2	WS	PT	NH	E	RL
2005	CHENANGO 12	B	36	24	RP	ST	NH	U	TR
2005	CHENANGO 12	B	48	2	NH	PT	NH	E	FW
2005	CHENANGO 12	B	56	3	NH	ST	NH	U	FW
2005	CHENANGO 17	A	26	2	GR	-	GR	GR	RE
2005	CHENANGO 17	A	59	24	NH	PT	NH	U	FW
2005	CHENANGO 19	A	35	2	NH-GR	ST	NH-WP	U	PT
2005	CHENANGO 19	B	48	12	RP	PT	NH	U	RT
2005	CHENANGO 19	B	51	4	NH-HEM	PT	HEM-NH	U	FW
2005	CHENANGO 19	B	54	11	RP	PT	NH	U	RT
2005	CHENANGO 19	C	3	4	WS	PT	NH	E	TSI
2005	CHENANGO 19	C	15	45	NH	PT	NH	U	IN
2005	CHENANGO 19	C	44	6	NH-HEM	ST	NH-HEM	UVR	IN
2005	CHENANGO 32	A	17	10	NS	PT	NS-NH	E	PU
2005	CHENANGO 32	A	68	3	NS	PT	NH-NS	E	PU
2006	CHENANGO 17	A	8	9	NS-NH	PT	NH-NS	U	PU
2006	CHENANGO 17	A	75	15	HEM-NH	ST	HEM-NH	UVR	IN
2006	CHENANGO 17	B	1	24	RP-NH	PT	NH	EVR	RC
2006	CHENANGO 17	B	6	4	NS	PT	NH-NS	E	PU
2006	CHENANGO 19	A	15	21	NH	ST	NH	U	IN
2006	CHENANGO 19	A	16	2	NH	PT	NH-NS	U	IN
2006	CHENANGO 19	A	38	20	NS	PT	NS-NH	U	PU
2006	CHENANGO 19	A	39	2	NH	PT	NH	U	FW
2006	CHENANGO 19	C	50	19	RP-NS	PT	NH-NS	E	PU/RT
2006	CHENANGO 19	C	51	6	NS-LA	PT	NS-NH	E	PU
2006	CHENANGO 19	C	52	43	RP-NS	ST	NH	E	PU
2006	CHENANGO 19	C	53	2	NH-HEM	ST	HEM-NH	UVR	FW

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2006	CHENANGO 19	C	54	10	RP	PT	NH	E	TR
2006	CHENANGO 19	D	19	43	RP	PT	NH	E	TR
2006	CHENANGO 32	A	86	3	GR	-	GR	GR	MO
2006	CHENANGO 34	A	5	42	HEM-NH	ST	HEM-NH	UVR	IN
2006	CHENANGO 34	A	7	25	NH	ST	NH	U	IN
2006	CHENANGO 34	A	9	2	NH	ST	NH	U	ST
2006	CHENANGO 34	A	58	4	HEM-NH	ST	HEM-NH	UVR	IN
2007	CHENANGO 17	A	35	8	PH	PT	PH	ES	GC
2007	CHENANGO 17	A	51	16	NS	ST	NS-NH	E	PU/SR
2007	CHENANGO 17	A	52	2	NS-NH	PT	NH	U	PU
2007	CHENANGO 17	B	20	23	NH	ST	NH	U	IN
2007	CHENANGO 17	B	33	2	NH	PT	NH	E	FW
2007	CHENANGO 17	B	38	8	NS	PT	NS-NH	UVR	PU
2007	CHENANGO 17	B	39	6	RP-NS	ST	NH	U	PU
2007	CHENANGO 17	B	43	2	NH	PT	NH	U	FW
2007	CHENANGO 19	C	7	8	NH	PT	NH	U	FW
2007	CHENANGO 19	C	12	3	NH	PT	NH	E	FW
2007	CHENANGO 19	C	43	23	RP-NS	ST	NS-NH	E	PU/RT
2007	CHENANGO 19	C	57	19	NS-RP	ST	NH	EVR	PU
2007	CHENANGO 19	C	65	4	NH	ST	NH	U	IN
2007	CHENANGO 19	D	3	8	RP-NS	PT	NH	UVR	RT
2007	CHENANGO 19	D	37	16	NH	PT	NH	U	IN
2007	CHENANGO 19	D	39	9	NH	ST	NH	U	IN
2007	CHENANGO 19	D	47	37	RP	ST	NH	E	RT
2007	CHENANGO 28	A	1	4	NH-HEM	PT	HEM-NH	UVR	FW
2007	CHENANGO 28	A	3	20	WS	PT	RM-WS	U	PU
2007	CHENANGO 32	A	5	9	NS	PT	NS-NH	E	PU
2007	CHENANGO 32	A	10	5	NS-PH	PT	NS-NH	E	PU
2007	CHENANGO 32	A	19	7	WS-NS	PT	NS-NH	U	PU
2007	CHENANGO 32	A	46	22	NH	PT	NH	E	FW
2007	CHENANGO 32	A	48	26	NH	PT	NH	U	IN
2008	CHENANGO 12	B	7	21	NH	ST	NH	U	IN
2008	CHENANGO 12	B	8	4	NH-HEM	ST	NH-HEM	UVR	IN
2008	CHENANGO 12	B	11	20	NH	ST	NH	U	IN

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2008	CHENANGO 12	B	14	21	NH	ST	NH	U	IN
2008	CHENANGO 12	B	18	71	RP	ST	NH	E	RT
2008	CHENANGO 12	B	21	37	NH	ST	NH	U	IN
2008	CHENANGO 12	B	22	14	HEM-NH	ST	HEM-NH	UVR	IN
2008	CHENANGO 12	B	37	3	NH	ST	NH	E	IN
2008	CHENANGO 17	A	56	23	RP	ST	NH	E	RC
2008	CHENANGO 17	A	57	4	NH	ST	NH	E	ST
2008	CHENANGO 17	A	66	1	RP-NH	ST	NH	U	RC
2008	CHENANGO 17	A	68	19	RP-NH	ST	NH	UVR	RT
2008	CHENANGO 17	A	70	10	RP-SP	ST	NH	UVR	GT
2008	CHENANGO 19	C	27	5	RP	PT	NH	U	RT
2008	CHENANGO 19	C	28	9	NS	PT	NS-NH	E	PU
2008	CHENANGO 19	C	29	2	NH	PT	NH	U	IN
2008	CHENANGO 19	C	30	2	NS	PT	NS-NH	U	PU
2008	CHENANGO 19	C	66	1	RP	PT	NH	U	RC
2008	CHENANGO 19	C	67	2	NH	PT	NH	U	FW
2008	CHENANGO 19	D	8	71	RP-NS	ST	NH	E	PU
2008	CHENANGO 19	D	63	27	RP	PT	NH	E	TSI
2009	CHENANGO 17	A	27	36	WS-NH	PT	NH/PH	EVR	PU
2009	CHENANGO 17	A	28	2	APPLE	-	AP	AP	RA
2009	CHENANGO 17	B	11	100	RP-NS	ST	PL	E	RT
2009	CHENANGO 17	B	55	20	RP	PT	NH	E	TSI
2009	CHENANGO 17	B	57	52	NH-HEM	ST	NH-HEM	UVR	IN
2009	CHENANGO 17	B	58	9	NH	ST	NH	E	FW
2009	CHENANGO 19	A	18	39	NS	PT	NS-NH	E	PU
2009	CHENANGO 19	A	35	2	NH-GR	ST	NH-WP	U	PT
2009	CHENANGO 19	A	41	13	NH	ST	NH	U	IN
2009	CHENANGO 19	C	55	9	NH	PT	NH	U	FW
2009	CHENANGO 32	A	14	15	NH	ST	NH	U	IN
2009	CHENANGO 32	A	15	8	HEM-NH	PT	HEM-NH	UVR	FW
2009	CHENANGO 32	A	16	21	NH	PT	NH	E	FW
2010	CHENANGO 12	A	30	3	HEM-NH	PT	HEM-NH	U	IN
2010	CHENANGO 12	A	33	5	NH	PT	NH	U	IN
2010	CHENANGO 12	A	38	2	NH	PT	NH	U	IN

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2010	CHENANGO 12	A	57	14	NH	ST	NH	U	IN
2010	CHENANGO 12	A	66	1	RP	PT	NH	U	RT
2010	CHENANGO 12	B	3	14	NH	PT	NH	U	FW
2010	CHENANGO 12	B	4	6	WS-NH	PT	NH	U	TSI
2010	CHENANGO 12	B	57	9	NH	PT	NH-HEM	UVR	FW
2010	CHENANGO 17	A	1	22	NS-NH	ST	NH-NS	E	PU
2010	CHENANGO 17	A	5	14	NS-NH	ST	NH-NS	U	PU
2010	CHENANGO 17	A	6	6	NS-NH	PT	NH-NS	U	PU
2010	CHENANGO 17	B	7	34	NS-NH	PT	NH-NS	E	PU
2010	CHENANGO 19	C	45	40	RP-NS	PT	NH	E	RT
2010	CHENANGO 19	C	46	31	RP	PT	NH	E	RT
2010	CHENANGO 19	C	47	18	NH	ST	NH	U	IN
2010	CHENANGO 19	D	32	6	NH	PT	NH	E	FW
2010	CHENANGO 19	D	64	3	GR	-	GR	ZH	MO
2010	CHENANGO 19	D	65	20	RP	PT	NH	U	TSI
2010	CHENANGO 28	A	2	12	HEM-NH	ST	HEM-NH	UVR	IN
2010	CHENANGO 28	A	5	11	NH	ST	NH	U	IN
2010	CHENANGO 28	A	7	5	NH-HEM	PT	HEM-NH	UVR	FW
2010	CHENANGO 28	A	25	3	NH-HEM	PT	NH-HEM	UVR	FW
2010	CHENANGO 32	A	37	18	NH	ST	NH	U	IN
2010	CHENANGO 32	A	38	1	AP	-	AP	BR	RA
2010	CHENANGO 32	A	70	4	NH	PT	NH	E	FW
2010	CHENANGO 32	A	76	1	PH	PT	BR	BR	RE
2010	CHENANGO 32	A	77	6	NH	PT	NH	U	FW
2010	CHENANGO 32	A	84	6	NH	PT	PH	ES	GC
2011	CHENANGO 12	B	42	4	NH	PT	NH	E	FW
2011	CHENANGO 12	B	47	5	NH	PT	NH	U	FW
2011	CHENANGO 17	A	9	7	HEM-NH	ST	HEM-NH	UVR	ST
2011	CHENANGO 17	A	13	46	HEM-NH	PT	HEM-NH	UVR	IN
2011	CHENANGO 17	A	17	37	NH	ST	NH	U	ST
2011	CHENANGO 17	A	18	4	RO-NH	PT	RO-NH	U	IN
2011	CHENANGO 17	A	19	8	RO-WS	PT	RO-NH	U	IN
2011	CHENANGO 17	A	61	4	NH	ST	NH	EVR	IN
2011	CHENANGO 17	A	62	7	NH	PT	NH	EVR	TSI
2011	CHENANGO 17	A	63	1	WS-NH	PT	NH	EVR	FW

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2011	CHENANGO 17	B	24	11	RP-NS	ST	NH	E	RT
2011	CHENANGO 17	B	27	8	JL	ST	NH	E	RT
2011	CHENANGO 17	B	42	26	NS	ST	NS-NH	E	PU
2011	CHENANGO 17	B	46	2	NS	PT	NH	UVR	PU
2011	CHENANGO 17	B	48	6	NS-NH	PT	NH	UVR	PU
2011	CHENANGO 17	B	49	3	PH	SS	BR-AP	BR-AP	RA
2011	CHENANGO 17	B	52	3	RP	PT	NH	E	TSI
2011	CHENANGO 19	C	16	14	WS	PT	NH	U	PU
2011	CHENANGO 19	C	17	10	NS-NH	PT	NH	U	PU
2011	CHENANGO 19	C	18	8	NS-NH	PT	NH	E	PU
2011	CHENANGO 19	C	19	18	NS	PT	NS-NH	E	PU
2011	CHENANGO 19	D	12	6	NH	PT	NH	U	FW
2011	CHENANGO 19	D	40	65	RP-SP	PT	NH	E	TR
2011	CHENANGO 19	D	41	2	NH	ST	NH	U	IN
2011	CHENANGO 19	D	73	2	BR	-	BR	BR	RE
2012	CHENANGO 17	A	58	11	NH	PT	BR	BR	RE
2012	CHENANGO 17	A	64	11	NH	PT	NH	E	IN
2012	CHENANGO 17	A	65	15	NH	ST	NH	U	IN
2012	CHENANGO 17	A	71	29	NH-HEM	ST	NH-HEM	UVR	IN
2012	CHENANGO 19	A	19	5	NS	PT	NS-NH	E	PU
2012	CHENANGO 19	A	22	5	NS	ST	NS-NH	E	PU
2012	CHENANGO 19	A	24	5	NS	PT	NS-NH	E	PU
2012	CHENANGO 19	A	25	15	NS-NH	PT	NS-NH	E	PU
2012	CHENANGO 19	A	27	18	NS	PT	NS-NH	E	PU
2012	CHENANGO 19	B	55	8	NS	PT	NH	U	PU
2012	CHENANGO 19	C	9	8	HEM-NH	PT	HEM-NH	U	IN
2012	CHENANGO 19	C	20	5	LA-NS	ST	NH	E	RT
2012	CHENANGO 19	C	21	14	LA-NS	PT	NH	E	RT
2012	CHENANGO 19	C	26	22	LA-NS	ST	NH	U	PU
2012	CHENANGO 19	C	36	18	HEM-NH	PT	HEM-NH	U	IN
2012	CHENANGO 19	C	37	11	NH	PT	NH	U	IN
2012	CHENANGO 19	C	58	7	HEM-NH	PT	HEM-NH	UVR	FW
2012	CHENANGO 19	C	61	7	LA-NS	ST	NH	U	RT

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2012	CHENANGO 19	D	14	12	NS-JL	PT	NH	E	PU
2012	CHENANGO 19	D	54	8	NH	PT	NH	U	FW
2012	CHENANGO 19	D	55	3	NH	PT	NH	U	FW
2012	CHENANGO 19	D	57	15	NH	PT	NH	E	FW
2012	CHENANGO 28	A	18	11	NH	PT	NH	U	IN
2012	CHENANGO 28	A	19	46	RP-NH	ST	NH	U	TR
2013	CHENANGO 12	A	3	68	NS	ST	NS-NH	E	PU
2013	CHENANGO 12	A	14	44	NH	PT	NH	U	IN
2013	CHENANGO 12	A	16	5	NH	PT	NH	E	IN
2013	CHENANGO 12	A	17	9	NH	PT	NH-HEM	E	FW
2013	CHENANGO 12	A	25	24	NH	PT	NH	U	TSI
2013	CHENANGO 12	A	28	15	NS	ST	NS-NH	E	PU
2013	CHENANGO 19	C	60	52	NH	ST	NH	U	ST
2013	CHENANGO 19	D	31	12	RP	PT	NH	E	RT
2013	CHENANGO 19	D	33	13	RP-NH	PT	NH	E	RT
2013	CHENANGO 19	D	35	11	RP	PT	NH	E	TR
2013	CHENANGO 19	D	38	3	RP	PT	NH	UVR	RT
2013	CHENANGO 19	D	74	3	NH	PT	NH	E	FW
2013	CHENANGO 28	A	9	52	RP	ST	NH-NS	E	RT
2014	CHENANGO 12	A	51	29	NH-HEM	ST	NH	U	IN
2014	CHENANGO 12	A	52	21	NH	PT	NH	U	FW
2014	CHENANGO 12	B	23	13	NS	ST	NS-NH	E	PU
2014	CHENANGO 12	B	24	6	NS-NH	ST	NS-NH	E	PU
2014	CHENANGO 12	B	25	2	NH	PT	NH	U	FW
2014	CHENANGO 12	B	26	4	NS	ST	NS-NH	E	PU
2014	CHENANGO 17	A	16	17	NS-NH	ST	NS-BF	U	PU
2014	CHENANGO 17	B	29	4	NH	ST	NH	E	FW
2014	CHENANGO 17	B	30	27	NH	ST	NH	E	IN
2014	CHENANGO 19	D	27	28	HEM-NH	PT	HEM-NH	UVR	IN
2014	CHENANGO 19	D	29	12	NH	PT	NH	U	IN
2014	CHENANGO 28	A	27	7	NH	PT	NH	U	FW
2014	CHENANGO 28	A	29	63	RP	ST	NH-NS	E	RT

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2014	CHENANGO 32	A	26	11	NS	PT	NH	U	PU
2014	CHENANGO 32	A	27	15	NH	PT	NH	E	FW
2014	CHENANGO 32	A	28	36	NS	PT	NS-NH	E	PU
2015	CHENANGO 12	A	2	7	NS	ST	NS-NH	E	PU
2015	CHENANGO 12	A	4	4	NS-NH	ST	NH-NS	E	PU
2015	CHENANGO 12	A	5	21	NS	ST	NH-NS	E	PU
2015	CHENANGO 12	A	10	26	NS-SP	ST	NS-NH	E	PU
2015	CHENANGO 12	A	27	53	NS-NH	ST	NH-NS	EL	PU
2015	CHENANGO 12	A	35	13	NH-WP	PT	WP-NH	U	IN
2015	CHENANGO 12	A	42	46	NH	ST	NH	U	ST
2015	CHENANGO 12	A	53	38	RP-JL	ST	NH	E	TR
2015	CHENANGO 12	A	54	27	RP-NS	ST	NH	E	RT
2015	CHENANGO 12	A	55	10	RP-JL	ST	NH-NS	E	RT
2015	CHENANGO 12	A	67	6	NH-NS	PT	NH	EVR	FW
2015	CHENANGO 12	A	71	7	WS-NH	PT	NH	E	PU
2015	CHENANGO 12	A	72	10	NH-HEM	ST	NH-HEM	UVR	ST
2015	CHENANGO 28	A	10	15	NH-HEM	ST	NH-HEM	UVR	ST
2015	CHENANGO 28	A	17	8	NH	PT	NH	E	FW
2016	CHENANGO 12	B	2	54	NH-WS	PT	NH	U	PU
2016	CHENANGO 12	B	58	11	WS	PT	NH	U	PU
2016	CHENANGO 17	A	2	15	NS-RP	ST	NH-NS	U	RT
2016	CHENANGO 17	A	3	2	NH	PT	NH	U	IN
2016	CHENANGO 17	A	4	4	NH-RP	ST	NH	E	RC
2016	CHENANGO 17	A	49	29	WS	PT	NH-WS	E	PU
2016	CHENANGO 17	A	50	3	WS-PH	PT	PH	ES	PU/GC
2016	CHENANGO 17	B	2	8	NH	PT	NH	E	IN
2016	CHENANGO 17	B	3	14	NH	ST	NH	U	IN
2016	CHENANGO 17	B	45	4	NH	PT	NH	U	FW
2016	CHENANGO 19	D	56	15	NH	PT	NH	U	FW
2016	CHENANGO 32	A	29	11	NH	PT	NH	E	FW
2016	CHENANGO 32	A	32	9	RP	PT	NH	U	RT
2016	CHENANGO 32	A	33	5	NH	PT	NH	E	FW

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2016	CHENANGO 32	A	35	11	RP	PT	NH	E	RC
2016	CHENANGO 32	A	55	4	NH	PT	NH	E	FW
2016	CHENANGO 32	A	60	23	NH	PT	NH	E	FW
2016	CHENANGO 32	A	62	14	NH	PT	NH	U	IN
2016	CHENANGO 32	A	66	3	NH	PT	NH	U	IN
2016	CHENANGO 32	A	69	2	HEM-NH	PT	HEM-NH	UVR	IN
2016	CHENANGO 32	A	72	15	RP	PT	NH	E	RT
2016	CHENANGO 32	A	74	2	NH	PT	NH	E	FW
2016	CHENANGO 32	A	75	2	PH	PT	PH	ES	GC
2016	CHENANGO 32	A	79	2	NH	PT	NH	E	FW
2016	CHENANGO 32	A	82	1	NH	PT	NH	E	FW
2016	CHENANGO 32	A	87	2	BR	-		BR	RE
2016	CHENANGO 32	A	89	4	NH	PT	NH	E	FW
2016	CHENANGO 32	A	90	5	NH	PT	NH	E	FW
2016	CHENANGO 34	A	16	17	RP	PT	NH	E	TR
2016	CHENANGO 34	A	18	2	RP	PT	NH	E	RC
2016	CHENANGO 34	A	46	1	WS-RP	ST	NH	E	PU
2016	CHENANGO 34	A	48	3	RP-WS	ST	NH-WS	E	RT
2016	CHENANGO 34	A	49	5	RP	PT	NH	E	TR
2016	CHENANGO 34	A	50	3	BR	-	BR	BR	RE
2017	CHENANGO 12	A	8	8	NS	PT	NH	E	PU
2017	CHENANGO 12	A	9	27	NS	ST	NS-NH	E	PU
2017	CHENANGO 12	A	18	15	WS	PT	NH	E	PU
2017	CHENANGO 12	A	19	10	WS-NH	PT	NH-WS	E	PU
2017	CHENANGO 17	A	32	8	NS-RO	ST	NH-NS	U	PU
2017	CHENANGO 17	A	33	5	RO-NH	PT	NH-RO	U	TSI
2017	CHENANGO 17	A	53	28	NS-NH	ST	NH-NS	U	PU
2017	CHENANGO 17	A	55	5	NS	ST	NS-NH	E	PU
2017	CHENANGO 19	C	64	19	NH	ST	NH	U	IN
2017	CHENANGO 19	D	48	14	NH	ST	NH	E	ST
2017	CHENANGO 28	A	4	36	RP-NS	ST	NH	E	RT
2017	CHENANGO 28	A	20	4	NH	PT	NH	U	FW
2017	CHENANGO 28	A	21	16	NH-HEM	PT	NH	U	IN

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2017	CHENANGO 32	A	42	7	JL	PT	NH	E	TSI
2017	CHENANGO 32	A	44	9	JL	PT	NH	E	RT
2017	CHENANGO 32	A	45	6	JL-NH	PT	NH	E	TSI
2017	CHENANGO 32	A	47	2	NS-JL	PT	NH	E	PU
2017	CHENANGO 32	A	78	3	JL	PT	NH	E	TSI
2017	CHENANGO 34	A	31	13	NH	PT	NH	E	IN
2017	CHENANGO 34	A	34	18	NH	ST	NH	E	IN
2017	CHENANGO 34	A	38	21	HEM-NH	ST	HEM-NH	UVR	IN
2017	CHENANGO 34	A	51	3	NH	PT	NH	E	FW
2017	CHENANGO 34	A	54	13	NH	PT	NH	U	FW
2018	CHENANGO 12	A	61	8	RP	ST	NH	E	RT
2018	CHENANGO 12	A	63	10	RP-NS	ST	NH	E	TR
2018	CHENANGO 12	B	10	13	WP	ST	WP-NH	UVR	RT
2018	CHENANGO 12	B	12	4	NS-SP	ST	NH	U	PU
2018	CHENANGO 12	B	13	11	WP	PT	WP-NH	UVR	RT
2018	CHENANGO 12	B	17	17	RP	PT	NH	E	TSI
2018	CHENANGO 12	B	31	21	NH	PT	NH	U	FW
2018	CHENANGO 12	B	38	20	NS	ST	NS-NH	E	PU
2018	CHENANGO 12	B	39	21	NS-NH	ST	NH-NS	UVR	PU
2018	CHENANGO 12	B	40	3	WS-NH	PT	BF-WS	E	PU
2018	CHENANGO 12	B	41	22	NS	ST	NS-NH	E	PU
2018	CHENANGO 12	B	43	13	NS-NH	ST	NH	U	PU
2018	CHENANGO 17	A	48	6	NH-HEM	ST	HEM-NH	UVR	IN
2018	CHENANGO 17	A	74	12	NS-NH	ST	NS-NH	U	FW
2018	CHENANGO 19	C	39	19	NS	PT	NS-NH	E	PU
2018	CHENANGO 28	A	23	2	NH	ST	NH	U	IN
2018	CHENANGO 28	A	24	8	EL	ST	NH	U	RT
2018	CHENANGO 32	A	65	4	PH	PT	PH	ES	GC
2018	CHENANGO 34	A	2	34	HEM-NH	ST	HEM-NH	UVR	IN
2018	CHENANGO 34	A	3	2	NH	PT	NH	E	FW
2018	CHENANGO 34	A	11	14	NH	ST	NH	E	IN
2018	CHENANGO 34	A	12	57	NH	ST	NH	U	IN

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2019	CHENANGO 12	A	31	22	NS	ST	NS-NH	E	PU
2019	CHENANGO 17	B	32	14	RP-NS	ST	NH	E	RT
2019	CHENANGO 17	B	34	32	RP	ST	NH	E	TR
2019	CHENANGO 19	A	1	12	NS	ST	NS-NH	E	PU
2019	CHENANGO 19	A	17	3	NH	PT	NH	U	FW
2019	CHENANGO 19	B	1	21	NH	PT	NH-NS	U	IN
2019	CHENANGO 19	C	22	20	NH	PT	NH	U	IN
2019	CHENANGO 19	D	24	17	NH	PT	NH	U	FW
2019	CHENANGO 19	D	25	3	NS-NH	PT	NH	E	PU
2019	CHENANGO 19	D	28	12	NS	PT	NH	E	PU
2019	CHENANGO 19	D	30	4	NS-NH	PT	NH	E	PU
2019	CHENANGO 28	A	13	20	NH-HEM	ST	HEM-NH	UVR	IN
2019	CHENANGO 28	A	28	4	HEM-NH	ST	HEM-NH	UVR	IN
2019	CHENANGO 32	A	3	12	JP-NH	PT	NH	E	IN
2019	CHENANGO 32	A	4	3	NH	PT	NH	E	FW
2019	CHENANGO 32	A	85	9	NH	ST	NH	U	IN
2019	CHENANGO 34	A	28	9	NS	PT	NS-NH	E	PU
2019	CHENANGO 34	A	29	18	NS	PT	NH-NS	E	PU
2019	CHENANGO 34	A	35	15	NS-NH	ST	NS-NH	E	PU
2019	CHENANGO 34	A	36	12	NS	ST	NS-NH	E	PU
2019	CHENANGO 34	A	52	15	NS	PT	NS-NH	E	PU
2019	CHENANGO 34	A	53	9	NS	PT	NS-NH	E	PU
2020	CHENANGO 12	A	48	9	NH	PT	NH	UVR	FW
2020	CHENANGO 12	B	29	10	WS-NH	PT	NH	E	PU
2020	CHENANGO 12	B	30	30	RP	ST	NH	E	RT
2020	CHENANGO 12	B	44	7	NH	PT	NH	U	FW
2020	CHENANGO 12	B	50	2	RP	ST	NH	U	RC
2020	CHENANGO 12	B	51	3	WS-NH	PT	NH	E	PU
2020	CHENANGO 12	B	53	2	NS	PT	NH-NS	E	PU
2020	CHENANGO 17	B	8	19	NH	ST	NH	E	ST
2020	CHENANGO 17	B	9	6	HEM-NH	ST	HEM-NH	UVR	IN
2020	CHENANGO 17	B	10	30	NH	ST	NH	E	IN
2020	CHENANGO 17	B	23	3	NH	ST	NH	U	IN

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2020	CHENANGO 19	A	3	27	NS	ST	NS-NH	E	PU
2020	CHENANGO 19	A	5	28	NS	PT	NH-NS	U	PU
2020	CHENANGO 19	A	6	5	NS	PT	NS-NH	E	PU
2020	CHENANGO 19	A	7	7	NS	PT	NS-NH	E	PU
2020	CHENANGO 32	A	20	4	NH-WS	PT	NH	E	FW
2020	CHENANGO 34	A	19	21	NH	ST	NH	U	IN
2020	CHENANGO 34	A	23	18	HEM-NH	PT	HEM-NH	UVR	ST
2020	CHENANGO 34	A	41	39	NS	PT	NS-NH	E	PU
2020	CHENANGO 34	A	55	10	NH-BR	PT	NH	E	FW/PU
2020	CHENANGO 34	A	56	3	NH	PT	NH	U	FW
2021	CHENANGO 12	B	45	39	NH	PT	NH	U	FW
2021	CHENANGO 12	B	46	22	NH	PT	NH	U	IN
2021	CHENANGO 17	B	40	20	NH	PT	NH	UVR	IN
2021	CHENANGO 17	B	41	2	HEM-NH	PT	HEM-NH	UVR	IN
2021	CHENANGO 19	A	12	5	NS	ST	NS-NH	E	PU
2021	CHENANGO 19	A	13	60	NS	ST	NS-NH	E	PU
2021	CHENANGO 19	D	10	67	RP-NS	ST	NH-NS	E	RT
2021	CHENANGO 19	D	50	13	NH	PT	NH	U	FW
2021	CHENANGO 19	D	51	15	NH	PT	NH	U	IN
2021	CHENANGO 19	D	60	18	RP	PT	NH	E	RT
2021	CHENANGO 32	A	11	16	WS-NH	ST	NH-WS	E	PU
2021	CHENANGO 34	A	1	11	NH-WP	PT	NH-WP	E	FW
2022	CHENANGO 12	A	1	39	NH	ST	NH	U	ST
2022	CHENANGO 17	A	24	2	NH	PT	NH	U	IN
2022	CHENANGO 17	B	22	11	WS	PT	WS-NH	E	PU
2022	CHENANGO 17	B	28	9	NH-WS	PT	NH	E	FW
2022	CHENANGO 17	B	44	13	JL	ST	NH	E	RT
2022	CHENANGO 19	B	11	21	RP	PT	NH	FNA	RT
2022	CHENANGO 32	A	12	24	HEM-NH	PT	HEM-NH	UVR	IN
2022	CHENANGO 32	A	13	66	NH	ST	NH	U	IN
2022	CHENANGO 32	A	18	8	RP-PH	SS	RP-NH	E	TSI
2022	CHENANGO 34	A	21	12	NS	ST	NH-NS	E	PU

TREAT YEAR	FOREST	SUB COMP	STAND	ACRES	VEGETATION TYPE	DBH	OBJECTIVE TYPE	MNGT DIR	TREAT
2022	CHENANGO 34	A	22	68	NS	PT	NH-NS	E	PU
2023	CHENANGO 19	A	26	6	NH	ST	NH	U	ST
2023	CHENANGO 19	A	29	27	NH	ST	NH	U	IN
2023	CHENANGO 19	A	30	68	NH	ST	NH	U	ST
2023	CHENANGO 19	A	37	2	NH	PT	NH	U	IN
2023	CHENANGO 19	D	22	52	NS-NH	PT	NH	E	PU
2023	CHENANGO 19	D	23	22	NS-NH	PT	NH	E	PU
2023	CHENANGO 28	A	14	6	RP	ST	NH	U	RT
2023	CHENANGO 28	A	16	3	NH-BR	PT	NH-BR	E	TSI
2023	CHENANGO 28	A	32	114	RP-NS	ST	NH	E	RT
2024	CHENANGO 17	A	37	16	WS	PT	NH-WS	E	PU
2024	CHENANGO 17	A	39	4	WS-NH	PT	PH	E	GC/PU
2024	CHENANGO 17	A	40	3	WP-WS	PT	WH	UVR	PU
2024	CHENANGO 17	A	42	6	WS-NH	PT	NH	U	PU
2024	CHENANGO 17	A	45	22	WS-NH	PT	NH-WS	UVR	PU
2024	CHENANGO 17	A	46	7	PH	PT	NH	E	TSI
2024	CHENANGO 19	D	1	18	RP-NS	ST	NH	E	TR
2024	CHENANGO 19	D	7	16	RP-NS	ST	NH	E	RT
2024	CHENANGO 32	A	23	8	PH	PT	NH	U	IN
2024	CHENANGO 32	A	30	26	NH-HEM	PT	HEM-NH	UVR	FW
2024	CHENANGO 32	A	41	2	NH	PT	NH	E	IN
2024	CHENANGO 32	A	43	14	NH	PT	NH	E	IN
2024	CHENANGO 32	A	52	8	WS-NH	PT	NH	EVR	PU
2024	CHENANGO 32	A	80	5	WS	PT	NH	E	PU
2024	CHENANGO 32	A	83	2	WS	PT	NH	E	PU
2024	CHENANGO 34	A	24	7	HEM-NH	ST	HEM-NH	UVR	IN
2024	CHENANGO 34	A	25	24	NH	ST	NH	U	IN
2024	CHENANGO 34	A	27	35	NH	PT	NH	E	FW
2024	CHENANGO 34	A	40	17	NS	ST	NS-NH	E	PU
2024	CHENANGO 34	A	42	10	NH	PT	NH	U	FW
2024	CHENANGO 34	A	43	11	HEM-NH	PT	HEM-NH	UVR	ST

Annual Summary of Stand Treatment Schedule (Designated by Acres)

Year	Pine	Spruce	Hardwood	Fwd	TSI	Other	Total
2005	116	36	51	36	4	7	250
2006	77	101	109	4	0	1	292
2007	42	115	78	44	8	0	287
2008	130	82	126	2	27	0	367
2009	100	75	80	47	20	4	326
2010	72	76	83	47	32	5	315
2011	84	84	108	16	10	5	307
2012	72	90	103	33	0	11	309
2013	94	83	101	9	24	0	311
2014	63	87	96	49	0	0	295
2015	75	125	84	14	0	0	298
2016	81	98	43	76	2	5	305
2017	45	103	101	20	21	0	290
2018	50	102	113	35	21	0	321
2019	46	131	86	23	0	0	286
2020	32	121	97	33	0	0	283
2021	85	81	59	63	0	0	288
2022	34	91	131	9	8	0	273
2023	120	74	103	0	3	0	300
2024	34	79	66	71	11	0	261
Total	1452	1834	1818	631	191	38	5964
Average	73	92	91	32	10	2	299

Explanation of terms for the above table

- Pine column lists acres of stand treatments that are harvests of primarily red pine, scotch pine, white pine or larch.
- Spruce column lists acres of stand treatments that are harvests of primarily Norway spruce or white spruce.
- Hardwood column lists acres of stand treatments that are harvests of hardwood sawtimber with varying amounts of hardwood cordwood.
- Fwd column lists acres of stand treatments that are harvests of firewood quality hardwoods.
- TSI column lists acres of stand treatments that require non-commercial tree felling. This category includes treatments listed as TSI (timber stand improvement) and GC (clearcuts to perpetuate aspen habitat).
- Other column include acres of stand treatments for activities such as releasing apple trees or other shrub species, mowing fields and planting trees.

C. Grassland Maintenance

TREATMENT YEAR	FOREST	SUB COMP	STAND	ACRES	MNGT DIR	TREAT
ANNUALLY	CHENANGO 34	A	59	5	GR	MO
TRIENNIALLY	CHENANGO 19	D	67	2	GR	MO

D. Boundary Line Maintenance

TREATMENT YEAR	FOREST	MILES
2010	CHENANGO 12	10.9
2013	CHENANGO 17	21.8
2010	CHENANGO 19	28.2
2011	CHENANGO 28	6.0
2010	CHENANGO 32	9.0
2015	CHENANGO 34	13.1

Maintenance includes signage and painting line on a seven year cycle.

E. Boundary Line Surveys

The following surveys will be contracted to private surveyors as funding becomes available:

Chenango RA# 19:

Proposal B: The boundaries to be surveyed and marked total approximately 2,900 feet. Real Property Services Survey No. 7-09-352.

Chenango RA#32:

Proposals A, B, and C: Portions of the exterior boundary have not been surveyed. The exterior boundaries in need of surveying and mapping total approximately 23,000 feet.

Chenango RA#34:

Re-establish the location of the corner at the intersection of Proposal A and H along the northern boundary line of Proposal A. Survey approximately 1,400 feet of corresponding boundary line along the NE edge of Proposal A and H as needed.

F. Public Use Information

Year	Action
2010	Install information/education sign at the edge of Jam Pond.
2011	Construct three information kiosks on the Unit.

Year	Action
2012	Produce a Visitors Guide.
2012	Renew the forest identification signs for Chenango RA#28 on County. Rt. 2; and Chenango RA #19 on County. Rt. 5. Replace sign for Chenango RA#17 on County Rt. 7. Install sign for Chenango RA# 12 on Lake Road and for Chenango RA# 32 on Hollow Road.

G. Public Access Actions

Year	Public Access Action
2009-2010	Install two gates, boulders and water bars to prevent soil erosion on the power line ROW on Chenango RA# 19. Sign ROW to prohibit off-road vehicle use.
2009-2010	Access road to Pucker Pond - Improve drainage and fill wet holes with gravel. Establish a designated parking area; install gate.
2010	Reconstruct dam and emergency spillway. Construct parking, trail and wildlife viewing site. Install gate and resurface access road.
2010	Upgrade fishing access from shore at the Balsam Pond boat launch - Widen the small, narrow, earthen peninsula located just to the north of the boat launch with earthen fill and surface to make it accessible to ADA standards.
2010	Improve fish habitat at Balsam Pond boat launch area through excavation and installation of stumps for habitat.
2010	Improve boat launch at Balsam Pond.
2010	Develop regulation to prohibit gas powered motors greater than 25 horsepower on Balsam Pond.
2010	Designate two primitive campsites near Balsam Pond dam.
2010	Establish snowmobile corridor trail.
2011	Begin construction on hiking trail.
2011	Construct a 0.3 mile access road, upgrade eight campsites, two privies and construct four new campsites to meet ADA accessibility standards at Balsam Pond Camping area.
2011	Close designated motorized access trail for people with disabilities on Chenango RA #28.
2011	Establish approximately 0.75 miles in length trail on Chenango RA#17 to provide motorized access for people with disabilities.

H. Resource Data Collection

1. Forest inventory data collection

Year	State Forest	Acres
2014	Chenango RA#19	3,573
2014	Chenango RA#32	876
2015	Chenango RA#12	1,926
2015	Chenango RA#17	1,763
2015	Chenango RA#28	602
2015	Chenango RA#34	916

2. Inventory and map historic cultural resources on the Unit.

Year	State Forest
2009	Chenango RA#19
2010	Chenango RA#12, 34
2011	Chenango RA#17, 28, 32

VII. BUDGET

Annual Budget Needs

Project	Unit	Cost ($)	Lands & Forest work days	Other DEC work days
Maintain access road to Balsam Pond boat launch.	0.2 mile	3,000	0	2
Rental of two privies during summer camping season at Balsam Pond.	2	4,000	0	1
General Unit maintenance		5,500	0	20
Forest product sales and treatments. (Cost does not consider sales revenue)	+/- 324 acres	31,000	125	0
Post treatment inventory	+/- 324 acres	1,800	7	0

Project	Unit	Cost ($)	Lands & Forest work days	Other DEC work days
Coordination with local government and community organizations		1,500	6	0
Law enforcement, fire protection and suppression		3,750	0	15
TOTAL		**50,550**	**138**	**38**

Periodic Budget Needs

Year	Project	Unit	Cost ($)	L&F work days	Other DEC work days
2010	Install sign at Jam Pond.	1	800	1	0
2010	Install water bars to prevent soil erosion on the power line ROW on Chenango RA# 19. Sign ROW to prohibit off-road vehicle use.		500	0.5	1
2010	Improve fish habitat at Balsam Pond boat launch area through excavation and installation of stumps for habitat.	1	2,500	0.5	2
2010	Improve boat launch at Balsam Pond.	1	18,000	1	15
2010	Upgrade fishing access- Balsam Pond boat launch - widen peninsula, harden surface, construct to ADA standards.	1	18,000	1	6
2010	Develop regulation to prohibit gas powered motors greater than 25 horsepower on Balsam Pond.			0.5	0
2010	Designate two primitive campsites near Balsam Pond dam.	2		0	1
2010	Repaint Chenango # 12 boundary line.	10.9 miles	1,360	0	11
2010	Repaint Chenango # 19 boundary line.	28.2 miles	3,525	0	28
2010	Repaint Chenango # 32 boundary line.	9.0 miles	1,125	0	9

Year	Project	Unit	Cost ($)	L&F work days	Other DEC work days
2010	Rehabilitate Pucker Pond Access Road, construct parking area and install gate.	1	10,000	1	10
2010	Reconstruct dam and emergency spillway at Baker Pond. Construct parking, trail and wildlife viewing site. Install gate and resurface access road.		90,000	15	35
2010	Construct snowmobile trail	7.4 miles		1	0
2011	Establish parking area and 0.75 mile trail on Chenango #17 to provide motorized access for people with disabilities.	1	15,000	2	6
2011	Install 2 information kiosks.	2	3,000	3	3
2011	Close designated motorized access trail for people with disabilities	1	500	0.5	0.5
2011	Repaint Chenango RA# 28 boundary line.	6.0 miles	750	0	6
2011	Begin construction of hiking trail	16 miles	2,500	3	3
2012	Produce a Visitors Guide	1	1,000	1	2
2012	Install and maintain forest identification signs on Chenango RA# 12, 17, 19,28 and 32.	4	5,000	0	4
2013	Repaint Chenango RA# 17 boundary line.	21.8 miles	2,725	0	22
2013	Redesign Balsam Pond Campground, install kiosk.		55,000	8	38
2014	Forest inventory on Chenango RA#19 & 32	4,449 acres	32,000	127	0
2015	Repaint Chenango RA# 34 boundary line.	13.1 miles	1,640	0	13
2015	Forest inventory on Chenango #s 12, 17, 28 & 34.	5,207 acres	37,000	148	0
TOTAL			**301,925**	**314**	**215.5**

VIII. Glossary

basal area- the cross sectional area of all stems of a species or all stems in a stand measured at breast height and expressed per unit of land area (i.e. basal area/ acre). (Helms, 1998)

biodiversity- the diversity of life in all its forms and at all its levels of organization. The sum total of all forms of life including genes, microbes, fungi, plants, animals and ecosystems (Hunter,1999)

bog- a nutrient- poor, acidic peatland that receives water primarily from direct rainfall, with little or no influence from groundwater or runoff (Reschke, 1990).

canopy- the aerial branches of terrestrial plants (usually trees and shrubs), and their complement of leaves, that form the uppermost layers of vegetation in a community. (Reschke, 1990)

cavity tree- trees containing an excavation sufficiently large for nesting, denning or shelter; trees may be alive or dead. (Chambers, 1983)

clearcutting- removal of all trees within a stand in one cutting with reproduction obtained artificially or by natural seeding. (Smith, 1962)

conifer plantation- a stand composed primarily of cone bearing (i.e. spruce, pine) trees established by planting or artificial seeding. (Helms, 1998)

coarse woody debris- dead limbs, boles and roots in various stages of decomposition on the forest floor. (Hunter, 1999)

connectivity- pertaining to the extent to which conditions exist between separate forest areas to ensure habitat for breeding, feeding or movement of wildlife within their home range or migration areas. (Helms, 1998)

crop tree- any tree selected to become a component of a future commercial timber harvest. (Helms, 1998)

dbh- the diameter of a tree at breast height; the diameter of a tree at 4.5' from the ground. (Helms, 1998)

dendritic- a stream channel configuration that resembles the branching pattern of a tree.

Doyle log rule- a method for calculating board foot volume based on log length and its small end diameter.

ecosystem- living organisms and their environment functioning as an interacting unit. (Reschke, 1990)

ericaceous- describes plants in the heath family *Ericaceae* that are tolerant of acid soil conditions.

fluvial- of or pertaining to rivers. (Helms, 1998)

forbes- herbaceous plants that are not grass-like, especially used for broad leaved herbaceous plants such as ferns. (Reschke, 1990)

fragipan-dense or brittle layer in soils that owe their hardness mainly to extreme density or compactness rather than high clay content. (Brady, 1974)

habitat-a unit area of environment including climate, food, cover and water where an animal normally lives and develops. (Helms, 1998)

kame- an irregular ridge or hill of stratified glacial drift. (Brady, 1974)

kiosk- a small, free standing structure with panels used for mounting signs.

landscape- a relatively large spacial mosaic representing natural conditions that have been modified by cultural practices.

mixed hardwood/natural conifer- a forest stand with at least 10% of the basal area in conifer species and at least 10% in northern hardwood species.

monoculture- a forest stand of a single species and generally of the same age. (Helms, 1998)

moraine- an accumulation of soil, stones and other materials deposited by a glacier.

late successional forest - a ecological community where physical and biological processes are allowed to operate without direct human intervention.(Helms, 1998)

natural hardwood- deciduous tree species native to central New York including, but not limited to, sugar maple, American beech, white ash, black cherry, red maple and basswood.

old growth forest-late successional stage of forest development dominated by climax tree species (i.e. sugar maple, beech, red spruce, hemlock) nearing their maximum age and having : a stratified forest structure consisting of multiple growth layers, an abundance of coarse woody debris, canopy gaps formed by natural disturbance and an irregular forest floor with a hummock and hollow micro topography. (Helms, 1998)

open land- a plant community dominated by grasses or forbes.

parcelization-the subdivision of land into smaller ownership blocks. This intrudes new features and activities into the [landscape] and changes its character but does not necessarily fragment it in biophysical terms. (Richards, 1993)

peatland- a wet area where the partially-decayed remains of plant material has accumulated. (Reschke, 1990)

pond- a constructed or naturally-occurring impoundment of water.

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

riparian corridor or zone - areas of transition between terrestrial and aquatic ecological systems. They are characterized as having soils and vegetation analogous to floodplains, or areas transitional to upland zones. These areas help protect the water by removing or buffering the effects of excessive nutrients, sediments, organic matter, pesticides, or pollutants. (Helms, 1990)

rotation- in even aged silviculture, the period between forest stand establishment and final harvest. (Helms, 1998)

seedtree method- removal of the [all trees] within a stand in one cutting, except for a small number of seed trees left singly or in small groups. (Smith, 1962)

shelterwood method- removal of [all trees] within a stand in a series of cuttings, which extend over a relatively short portion of the rotation. (Smith, 1962)

shrubland- a plant community dominated by woody perennial shrubs with more than 50% canopy cover in shrub species (i.e. viburnum, dogwood, alder).

silviculture- the art, theory and practice of controlling forest establishment, composition and growth.(Smith, 1962)

stand- a contiguous group of trees sufficiently uniform in species composition, arrangement of age classes, and condition to be a homogeneous unit. (Smith, 1962)

stumpage- the [market] value of timber as it stands uncut in the forest.

variable retention- retention of structural elements (patches, tree, snags, logs) within a harvested stand to achieve various ecological objectives (i.e. structural complexity, riparian protection, habitat improvement).

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. (Helms, 1998)

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X. APPENDICES

APPENDIX I

Wetlands on the Unit

Classified Wetlands

State Forest	Sub-compartment	Stand	Acres	Catalog #	Class
CHENANGO 12	A	7, 12	31	P-10	II
	B	15, 54	16	P-11	II
CHENANGO 17	B	25	19	P-2	III
	A	69	13	P-3	II
	B	13, 14	19	P-4	II
	A	72, 73	55	P-5	II
	B	17, 18,19	33	P-6	II
	A	12	4	P-8	III
	A	31 (Baker Pond)	16	P-9	II
CHENANGO 19	A	9	6	P-13	III
	B	26	30	P-18	II
	B	31, 32, 37, 38 (Jam Pond)	45	SF-1	I
	C	48	62	SF-2	II
CHENANGO 28	A	11, 12	24	SF-4	II

Unclassified Wetlands

State Forest	Sub-Compartment	Stand	Acres
CHENANGO 12	A	6	1
	A	11	10
	A	20	10
	A	21	19
	A	36	7
	A	40	6
	A	45	24
	A	47	15

State Forest	Sub-Compartment	Stand	Acres
CHENANGO 12	A	73	3
	B	9	7
	B	19	4
	B	20	6
	B	33	12
	B	49	1
	B	55	6
CHENANGO 17	A	11	1
	A	25	6
	A	30	1
	A	41	10
	A	54	2
	B	5	6
	B	12	3
	B	21	9
	B	36	3
	B	53	13
	B	56	3
CHENANGO 19	A	2	15
	A	4	4
	A	10	31
	A	31	16
	A	32	9
	A	33	24
	A	34	9
	A	40	5
	B	2	12
	B	4	12
	B	5	3
	B	6	2
	B	10	24
	B	12	1
	B	22	10
	B	23	3
	B	25	34
	B	34	18
	B	39	21
	B	40	3
	B	41	6

State Forest	Sub-Compartment	Stand	Acres
CHENANGO 19	C	10	2
	C	13	12
	C	14	8
	C	23	7
	C	33	36
	C	34	10
	C	35	23
	C	38	3
	C	49	2
	C	56	4
	C	63	6
	D	2	9
	D	5	6
	D	17	2
	D	21	12
	D	36	6
	D	52	30
	D	53	7
	D	68	6
	D	75	4
CHENANGO 28	A	6	30
	A	30	1
CHENANGO 32	A	6	11
	A	31	12
	A	36	4
CHENANGO 34	A	6	15
	A	13	24
	A	14	5
	A	15	3
	A	20	4
	A	30	4
	A	32	54
	A	33	3
	A	44	2

APPENDIX II

Ponds on the Unit (constructed)

State Forest	Sub-Compartment	Stand	Acres	Common Name
CHENANGO 17 CHENANGO 34	B A	59 4	34 118	Balsam Pond
CHENANGO 17	A	31	16	Baker Pond
CHENANGO 19	C	59	7	Pucker Pond

Ponds on the Unit (natural)

State Forest	Sub-Compartment	Stand	Acres	Common Name
CHENANGO 19	B	37	5	Jam Pond

APPENDIX III

Breeding Species of Birds In The Vicinity Of The Five Streams Unit

Common Name	Scientific Name	Behavior Code*	Protective Status in New York
Alder Flycatcher	*Empidonax alnorum*	PR	Protected
American Woodcock	*Scolopax minor*	PR	Game Species
American Crow	*Corvus brachyrhynchos*	CO	Game Species
American Goldfinch	*Carduelis tristis*	CO	Protected
American Kestrel	*Falco sparverius*	CO	Protected
American Redstart	*Setophaga ruticilla*	CO	Protected
American Robin	*Turdus migratorius*	CO	Protected
Baltimore Oriole	*Icterus galbula*	CO	Protected
Bank Swallow	*Riparia riparia*	CO	Protected
Barn Swallow	*Hirundo rustica*	CO	Protected
Barred Owl	*Strix varia*	PR	Protected
Belted Kingfisher	*Ceryle alcyon*	PR	Protected
Black-and-white Warbler	*Mniotilta varia*	PR	Protected

Common Name	Scientific Name	Behavior Code*	Protective Status in New York
Black-capped Chickadee	*Poecile atricapillus*	CO	Protected
Black-throated Blue Warbler	*Dendroica caerulescens*	PR	Protected
Black-throated Green Warbler	*Dendroica virens*	PR	Protected
Blackburnian Warbler	*Dendroica fusca*	CO	Protected
Blue Jay	*Cyanocitta cristata*	CO	Protected
Blue-headed Vireo	*Vireo solitarius*	PR	Protected
Blue-Winged Warbler	*Vermivora pinus*	CO	Protected
Blue-winged Teal	*Anas discors*	PO	Game Species
Bobolink	*Dolichonyx oryzivorus*	CO	Protected
Brown Thrasher	*Toxostoma rufum*	PR	Protected
Brown-headed Cowbird	*Molothrus ater*	CO	Protected
Canada Goose	*Branta canadensis*	CO	Game Species
Canada Warbler	*Wilsonia canadensis*	CO	Protected
Cedar Waxwing	*Bombycilla cedrorum*	CO	Protected
Chestnut-sided Warbler	*Dendroica pensylvanica*	CO	Protected
Chimney Swift	*Chaetura pelagica*	PR	Protected
Chipping Sparrow	*Spizella passerina*	CO	Protected
Cliff Swallow	*Petrochelidon pyrrhonota*	CO	Protected
Common Grackle	*Quiscalus quiscula*	CO	Protected
Common Merganser	*Mergus merganser*	PR	Protected
Common Yellowthroat	*Geothlypis trichas*	CO	Protected
Common Loon	*Gavia immer*	PO	Protected-SC
Dark-eyed Junco	*Junco hyemalis*	CO	Protected
Double-crested Cormorant	*Phalacrocorax auritus*	PR	Protected
Downey Woodpecker	*Picoides pubescens*	CO	Protected
Eastern Wood-Pewee	*Contopus virens*	PR	Protected

Common Name	Scientific Name	Behavior Code*	Protective Status in New York
Eastern Tufted Titmouse	*Baeolophus bicolor*	CO	Protected
Eastern Towhee	*Pipilo erythrophthalmus*	CO	Protected
Eastern Phoebe	*Sayornis phoebe*	CO	Protected
Eastern Meadowlark	*Sturnella magna*	CO	Protected
Eastern Bluebird	*Sialia sialis*	CO	Protected
Eastern Kingbird	*Tyrannus tyrannus*	PR	Protected
European Starling	*Sturnus vulgaris*	CO	Unprotected
Field Sparrow	*Spizella pusilla*	CO	Protected
Grasshopper Sparrow	*Ammodramus savannarum*	PR	Protected-SC
Gray Catbird	*Dumetella carolinensis*	CO	Protected
Great Blue Heron	*Ardea herodias*	PR	Protected
Great Crested Flycatcher	*Myiarchus crinitus*	PR	Protected
Great Horned Owl	*Bubo virginianus*	PR	Protected
Green Heron	*Butorides virescens*	PR	Protected
Hairy Woodpecker	*Picoides villosus*	CO	Protected
Henslow's Sparrow	*Ammodramus henslowii*	CO	Threatened
Hermit Thrush	*Catharus guttatus*	PR	Protected
Hooded Merganser	*Lophodytes cucullatus*	PO	Game Species
Horned Lark	*Eremophila alpestris*	PR	Protected-SC
House Sparrow	*Passer domesticus*	CO	Unprotected
House Wren	*Troglodytes aedon*	CO	Protected
House Finch	*Carpodacus mexicanus*	CO	Protected
Indigo Bunting	*Passerina cyanea*	CO	Protected
Killdeer	*Charadrius vociferus*	CO	Protected
Least Flycatcher	*Empidonax minimus*	CO	Protected
Louisiana Waterthrush	*Seiurus motacilla*	PO	Protected
Magnolia Warbler	*Dendroica magnolia*	PR	Protected
Mallard	*Anas platyrhynchos*	CO	Game Species
Mourning Dove	*Zenaida macroura*	CO	Protected

Common Name	Scientific Name	Behavior Code*	Protective Status in New York
Mourning Warbler	***Oporonis philadelphia***	**PR**	**Protected**
Nashville Warbler	***Vermivora ruficapilla***	**PR**	**Protected**
Northern Cardinal	***Cardinalis cardinalis***	**CO**	**Protected**
Northern Flicker	***Colaptes auratus***	**CO**	**Protected**
Northern Goshawk	***Accipiter gentilis***	**PO**	**Protected-SC**
Northern Rough-winged Swallow	***Stelgidopteryx serripennis***	**PR**	**Protected**
Northern Waterthrush	***Seiurus noveboracensis***	**CO**	**Protected**
Osprey	***Pandion haliaetus***	**PO**	**Protected-SC**
Ovenbird	***Seiurus aurocapillus***	**CO**	**Protected**
Pied-billed Grebe	***Podilymbus podiceps***	**PR**	**Threatened**
Pileated Woodpecker	***Dryocopus pileatus***	**PR**	**Protected**
Pine Siskin	***Carduelis pinus***	**CO**	**Protected**
Purple Finch	***Carpodacus purpureus***	**CO**	**Protected**
Red-breasted Merganser	***Mergus serrator***	**PO**	**Game Species**
Red-breasted Nuthatch	***Sitta canadensis***	**PR**	**Protected**
Red-eyed Vireo	***Vireo olivaceus***	**CO**	**Protected**
Red-shouldered Hawk	***Buteo lineatus***	**PR**	**Protected - SC**
Red-tailed Hawk	***Buteo jamaicensis***	**CO**	**Protected**
Red-winged Blackbird	***Agelaius phoeniceus***	**CO**	**Protected**
Rock Dove	***Columba livia***	**PR**	**Unprotected**
Rose-breasted Grosbeak	***Pheucticus ludoviceus***	**CO**	**Protected**
Ruby-throated Hummingbird	***Archilochus colubris***	**CO**	**Protected**
Ruffed Grouse	***Bonasa umbellus***	**CO**	**Game Species**
Savannah Sparrow	***Passerculus sandwichensis***	**CO**	**Protected**
Scarlet Tanager	***Piranga olivacea***	**CO**	**Protected**

Common Name	Scientific Name	Behavior Code*	Protective Status in New York
Sharp-shinned Hawk	***Accipiter striatus***	**PR**	**Protected - SC**
Song Sparrow	***Melospiza melodia***	**CO**	**Protected**
Spotted Sandpiper	***Actitis macularia***	**PO**	**Protected**
Swamp Sparrow	***Melospiza georgiana***	**CO**	**Protected**
Tree Swallow	***Tachycineta bicolor***	**CO**	**Protected**
Tufted Titmouse	***Parus bicolor***	**PR**	**Protected**
Turkey Vulture	***Cathartes aura***	**CO**	**Protected**
Veery	***Catharus fuscescens***	**CO**	**Protected**
Vesper Sparrow	***Pooecetes gramineus***	**PR**	**Protected - SC**
Warbling Vireo	***Vireo gilvus***	**PR**	**Protected**
White-breasted Nuthatch	***Sitta carolinensis***	**CO**	**Protected**
White-throated Sparrow	***Zonotrichia albicollis***	**PR**	**Protected**
Wild Turkey	***Meleagris gallopavo***	**CO**	**Game Species**
Willow Flycatcher	***Empidonax traillii***	**PR**	**Protected**
Wood Thrush	***Hylocichla mustelina***	**CO**	**Protected**
Wood Duck	***Aix sponsa***	**CO**	**Game Species**
Yellow-bellied Sapsucker	***Sphyrapicus varius***	**PR**	**Protected**
Yellow-billed Cuckoo	***Coccyzus americanus***	**PR**	**Protected**
Yellow-rumped Warbler	***Dendroica coronata***	**CO**	**Protected**
Yellow-throated Vireo	***Vireo flavifrons***	**PR**	**Protected**
Yellow Warbler	***Hylocichla mustelina***	**CO**	**Protected**

***PO = Possible Breeding PR = Probable Breeding CO = Confirmed Breeding SC=Special Concern**

APPENDIX IV

Wildlife on the Unit

Common Name	Scientific Name	Protective Status *
Reptiles and Amphibians:		
Jefferson salamander	***Ambystoma jeffersonianum***	**SC**
Blue spotted salamander	***Ambystoma laterale***	**SC**
Spotted salamander	***Ambystoma maculatum***	**SC**
Red spotted newt	***Notophathalmus viridescens***	**UN**
Northern dusky salamander	***Desmognathus ochrophaeus***	**UN**
Mountain dusky salamander	***Desmognathus ochrophaeus***	**UN**
Redback salamander	***Plethodon cinereus***	**UN**
Northern spring salamander	***Gyrinophilus porphyriticus***	**UN**
Northern two-lined salamander	***Eurycea bislineata***	**UN**
American toad	***Bufo amer`icanus***	**UN**
Northern spring peeper	***Hyla crucifer***	**UN**
Grey tree frog	***Hyla versicolor***	**UN**
Bull frog	***Rana catesbeiana***	**GS**
Green frog	***Rana clamitans***	**GS**
Wood frog	***Rana sylvatica***	**GS**
Northern Leopard frog	***Rana pipiens***	**GS**
Pickerel frog	***Rana palustris***	**GS**
Common snapping turtle	***Chelydra serpentina***	**UN**
Spotted turtle	***Clemmys guttata***	**SC**
Wood turtle	***Clemmys insculpta***	**SC**
Eastern painted turtle	***Chrysemys picata***	**UN**
Northern water snake	***Nerodia spidedon***	**UN**
Northern brown snake	***Storeria dekayi***	**UN**
Northern redbelly snake	***Storeria occipitamaculata***	**UN**
Eastern garter snake	***Thamnophis sauritis***	**UN**
Eastern ribbon snake	***Thamnophis sauritis***	**UN**

Common Name	Scientific Name	Protective Status *
Northern ringneck snake	***Diadophis punctatus edwardsi***	**UN**
Northern black racer	***Coluber constrictor***	**UN**
Eastern smooth green snake	***Ophreodrys vernalis***	**UN**
Black rat snake	***Elaphe obsoleta***	**UN**
Eastern milk snake	***Lampropeltis triangulum***	**UN**
Slimy Salamander	***Plethodon glutinosus***	**UN**
Mammals:		
Opossum	***Didelphis virginiana***	**GS**
Short-tailed shrew	***Blarina brevicauda***	**UN**
Masked shrew	***Sorex cinereus***	**UN**
Smokey shrew	***Sorex Fumeus***	**UN**
Northern water shrew	***Sorex palustris***	**UN**
Pygmy shrew	***Microsorex hoyi***	**UN**
Least shrew	***Cryptotis parva***	**UN**
Starnose mole	***Condylura cristata***	**UN**
Hairy-tailed mole	***Parascalops breweri***	**UN**
Big brown bat	***Eptesicus fuscus***	**UN**
Little brown bat	***Myotis lucifugus***	**UN**
Eastern Pipistrel bat	***Pipistrellus subflavus***	**UN**
Eastern Cottontail	***Sylvilagus floridanus***	**GS**
Varying hare	***Lepus americanus***	**GS**
Gray Squirrel	***Sciurus carolinensis***	**GS**
Woodchuck	***Marmota monax***	**UN**
Red Squirrel	***Tamiasciurus hudsonicus***	**UN**
Eastern Chipmunk	***Tamias straitus***	**UN**
Southern Flying squirrel	***Glaucomys volans***	**UN**
Beaver	***Castor canadensis***	**GS**
Meadow vole	***Microtus pennsylvanicus***	**UN**

Common Name	Scientific Name	Protective Status *
Muskrat	***Ondatra zibethica***	**GS**
White-footed mouse	***Peromyscus leucopus***	**UN**
Deer mouse	***Peromyscus maniculatus***	**UN**
Redback vole	***Clethrionomys gapperi***	**UN**
Pine vole	***Pitymys pinetorum***	**UN**
Meadow jumping mouse	***Zapus hudsonius***	**UN**
Woodland jumping mouse	***Zapus insignis***	**UN**
Porcupine	***Erethizon dorsatum***	**UN**
Gray fox	***Urocyon cinereoargenteus***	**GS**
Red fox	***Vulpes fulva***	**GS**
Eastern Coyote	***Canis latrans***	**GS**
Raccoon	***Procyon lotor***	**GS**
Striped skunk	***Mephitis mephitis***	**GS**
Long-tailed weasel	***Mustela frenata***	**GS**
Short-tailed weasel	***Mustela ermines***	**GS**
Mink	***Mustela frenata***	**GS**
White-tailed deer	***Odocoileus virginiana***	**GS**
Black bear	***Ursus americanus***	**GS**
Fisher	***Martes pennanti***	**GS**
River otter	***Lutra canadensis***	**GS**
Bobcat	***Lynx rufus***	**GS**

*** SC- special concern GS- game species UN- unprotected**

APPENDIX V

Wildlife Harvest Data

A. Turkey Harvest Statistics

Chenango County Reported Turkey Harvest Statistics

Year	Spring	Fall
1992	277	137
1993	275	355
1994	257	231
1995	396	348
1996	367	116
1997	297	201
1998	288	196
1999	251	260
2000	235	124
2001	266	294

Turkey Harvest Within the Unit in 2001

Town	Spring	Fall	Total
German	5	5	10
McDonough	15	7	22
Pharsalia	8	13	21
Pitcher	7	5	12
Smithville	10	22	32

Total reported Wild Turkey harvest within the unit for the 2001 season: 97

B. Small Game Harvest Statistics

Estimated Small Game Hunter Take by Town Based on 1996-97 Statistics

Town	Sq. Miles	Rabbit	Squirrel	Hare	Raccoon	Red Fox	Grey Fox
German	28.8	294	499	8	62	1	16
Pitcher	28.7	293	497	8	62	1	16
McDonough	40	409	692	11	86	2	23
Smithville	51	511	866	14	108	2	29
Pharsalia	39.7	406	687	11	85	2	23

Town	Sq. Miles	Grouse	Pheasant	Woodcock	Duck	Goose
German	28.8	214	50	21	88	8
Pitcher	28.7	213	50	21	88	8
McDonough	40.0	297	69	29	122	12
Smithville	51.0	371	87	36	153	14
Pharsalia	39.7	295	69	29	121	9

NYSDEC 1996-1997 Small Game Hunter Survey

C. Deer Harvest Statistics

Total Deer Harvested Within the Unit Townships -10 Years

Towns	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Pharsalia	180	216	194	102	62	114	90	171	166	222
Smithville	299	399	397	202	213	170	255	325	357	424
McDonough	316	308	340	167	126	163	163	287	264	298
Pitcher	153	158	147	74	77	77	123	154	164	150
German	132	149	155	64	77	78	91	132	124	153

Source: 2000 New York State 20 yr. Deer Book

Adult Males Harvested/Sq. Mile Five Streams UMP - 10 Years

Towns	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Pharsalia	**2.39**	**2.37**	**2.07**	**1.41**	**1.06**	**1.81**	**1.64**	**2.37**	**1.79**	**2.57**
Smithville	**3.22**	**4.31**	**3.16**	**2.43**	**2.86**	**2.33**	**3.61**	**3.33**	**3.24**	**3.9**
McDonough	**4.27**	**3.97**	**2.82**	**2.15**	**1.97**	**2.55**	**2.75**	**3.65**	**2.9**	**3.82**
Pitcher	**3.14**	**2.86**	**2.33**	**1.88**	**1.92**	**1.78**	**3.28**	**2.96**	**2.82**	**2.58**
German	**2.26**	**2.5**	**1.81**	**1.01**	**1.77**	**1.63**	**2.19**	**2.22**	**2.15**	**1.98**

Source: 2000 New York State 20 yr. Deer Book

D. Beaver Populations in 2001 Within the Unit

Active Beaver Colony Sites

German	10 active colonies
Pitcher	10 active colonies
McDonough	14 active colonies
Smithville	17 active colonies
Pharsalia	13 active colonies

Number of Beaver/Town

German	10 colonies x 4/colony = 40
Pitcher	10 colonies x 4/colony = 40
McDonough	14 colonies x 4/colony = 56
Smithville	17 colonies x 4/colony = 68
Pharsalia	13 colonies x 4/colony = 52

Estimate of Beaver Population within Unit: 256

APPENDIX VI

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
ECL Article 71	Enforcement

B. Abstracts of Codes, Rules and Regulations of New York State

Title 6, Chapter II, Lands and Forests - 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 is 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 in posted areas, groups of 10 or more individuals require permits. Permits will not be issued to anyone under 18 years of age.

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 and the sale of alcohol. 25 mph speed limit specified on truck trails. No person shall deface, remove, destroy vegetation without a permit, etc. Use of motor vehicles on State Land is prohibited except where permitted by posted notice or permit issued by the Department. Use of horses is allowed except on intensively developed facilities such as day use areas, campsites, boat launch sites, etc. Horses also prohibited on off road foot trails and snow covered snowmobile or ski trails.

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 - Regs. for specific areas such as Zoar Valley, Lake George, the Olympic Area, etc.

C. Department Policies

Public Use	Prescribed Fire
Temporary Revocable Permits	State Forest Master Plan
Motor Vehicle use	Inventory
Timber Management	Acquisition
Unit Management Planning	Road Construction
Pesticides	Recreational Use

APPENDIX VII

Property Taxes, 2003

Township	Acres	Assessment	County Tax	Town Tax (*)	School Tax	Total Tax
German	6,898	$3,225,588	0	$35,918	$72,800	$108,718
McDonough	608	$576,904	$118	$7,091	$18,825	$26,034
Pharsalia	1,299	$803,361	$11,267	$1,892	$20,631	$33,790
Pitcher	454	$246,120	0	$2,837	$4,337	$7,174
Smithville	375	$379,200	0	$2,584	$10,731	$13,315
Total	9634	$5,231,173	$11,385	$50,322	$127,324	$189,031

(*) includes Town General, Town Highway and Special District taxes.

APPENDIX VIII

Stumpage Prices ($/mbf) by Species for 2000-2009 All prices are for Doyle Log Rule

Year	00	01	02	03	04	05	06	07	08	09
Hard Maple	740	830	720	720	770	850	910	800	600	525
Red Maple	230	240	210	210	240	270	260	225	250	200
White Ash	350	330	230	250	270	280	250	200	205	225
Black Cherry	1080	1250	980	1160	1240	1380	1270	1300	1200	800
Hemlock	50	60	50	50	50	60	50	60	70	50

Appendix IX

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

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

The ADA requires a public entity to thoroughly examine each of its programs and services to determine the level of accessibility provided . The examination involves the identification of all existing programs and services and an assessment to determine the degree of accessibility provided to each. The assessment includes the use of the standards established by Federal Department of Justice Rule as delineated by the Americans with Disabilities Act Accessibility Guidelines (ADAAG, either adopted or proposed) and/or the New York State Uniform Fire Prevention and Building Codes, as appropriate. The development of an inventory of all the recreational facilities or assets supporting the programs and services available on the unit was conducted during the UMP process. The assessment may establish the need for new or upgraded facilities or assets necessary to meet ADA mandates. The Department is not required to make each of its existing facilities and assets accessible. New facilities, assets and accessibility improvements to existing facilities proposed in this UMP are identified in the “Management Actions” section.

The Americans with Disabilities Act Accessibility Guidelines

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

Currently adopted ADAAG address the built environment: buildings, ramps, sidewalks, rooms within buildings, etc. The Access Board has proposed guidelines to expand ADAAG to cover outdoor developed facilities: trails, camp grounds, picnic areas and beaches. The proposed ADAAG is contained in 36 CFR Part 1195.

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

ADAAG Application

Current and proposed ADAAG will be used in assessing existing facilities or assets to determine compliance to accessibility standards. ADAAG is not intended or designed for this purpose, but using it to establish accessibility levels lends credibility to the assessment result. Management recommendations in each UMP will be proposed in accordance with the ADAAG for the built environment, the proposed 36 CFR Part 1195 for outdoor developed areas, the New York State Uniform Fire Prevention and Building Codes, and other appropriate guiding documents. Until such time as the proposed ADAAG becomes an adopted rule which will apply to state governments, the Department is required to use the best information available to comply with the ADA; this information includes, among other things, the proposed guidelines.

APPENDIX X

Public Survey

Summary of the Five Streams Unit Management Plan

Public Survey

*Summary is based upon **32** surveys returned the night of the scoping meeting January, 2003.*

The number next to each answer is the number of responses for that answer.

Please take a moment to complete this survey. Your responses will help us to better understand your opinions as we develop the management plan for this unit.

1. What activities have you done on the Unit?

(16) Hunting	(16) Fishing
(9) Camping	(19) Wildlife and Nature Observation
(2) Mountain Biking	(12) Snowmobiling
(10) Cross Country Skiing	(13) Hiking
(5) Horseback Riding	(16) Firewood or Timber harvesting
(17) Pleasure Driving	(7) Other _____
(2) No Answer	

2. How frequently do you visit the Unit to do your activity?

(2) 1 - 5 days a year (5) 6-15 days a year (23) 16 or more days a year. (3) No Answer

3. Do you live in one of the Chenango County towns of German, McDonough, Pitcher, Pharsalia or Smithville? (23) Yes (8) No (1) No Answer

For the following section, please check (✓) the box that most closely identifies how you feel about the statement.

	Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**	**No Opinion**	**No Answer**
4. I am satisfied with current management of the Unit.	3	10	4	3	5	6
5. Timber sales on State Forests benefit local communities.	6	6	6	8	3	3
6. Public recreation on State Forests benefits local communities.	13	13	0	2	2	2
7. The current planning process provides adequate opportunities for the public to express their opinions, ideas and concerns about the Unit.	6	11	3	2	7	3
8. The development of additional opportunities for community involvement with State Forests should be considered.	19	11	0	0	0	2

9. Left blank.

10. Are you willing to participate in, or assist DEC in the development of, a public program about the history, management or features on the Five Streams Unit?

(19) Yes (2) No (10) No Answer

11. Do you (or someone you know) have special knowledge about the Unit that you or they would be willing to share with DEC Foresters? (8) Yes (13) No (10) No Answer

If Yes, please check the appropriate category for the information and provide a brief description of your knowledge. Also write in your name and phone number where you can be reached if we need to contact you for further information.

Brief description

- ❑ History of old foundations or cemeteries (8)
- ❑ Historical events that occurred on the Unit (1)
- ❑ Bird or animal life on the Unit (4)
- ❑ Rare or unusual plants on the Unit (3)
- ❑ Other

12. How can management of State Forests on the Unit be improved? _____(18) No Answer

APPENDIX XI

Geology & Mineral Resources

I. Information on the Unit: Geology

Rock units (bedrock) outcropping or subcropping at the surface in the Five Streams State Forest (Chenango #12, 19 and 32), Balsam Swamp State Forest (Chenango #17 and 34), and Red Brook State Forest (Chenango #28) areas of the Allegheny Plateau in the southern tier of New York are shales, siltstones, and intermittent sandstones of the Genesee Group that was deposited during the Upper Devonian Period (approximately 350 - 400 million years ago). Topographically high areas (hill tops) of Red Brook State Forest (Chenango # 28) are composed of shales, siltstones and intermittent sandstones of the younger Sonyea Group.

Further information on the bedrock geology of the region is provided by the: *Geologic Map of New York - Finger Lake Sheet - New York State Museum and Science Service - Map and Chart #15, 1970.*

A very limited number of wells have been drilled into the subsurface of the areas surrounding the Five Streams Unit. Subsurface information pertaining to the bedrock (that does not outcrop) has been acquired through three (3) specific wells (Nornew Incorporated - Smith #1 well, Amoco - Wahlberg #1 well and Geneganst Gas & Oil Company, Incorporated - Smith #1 well) (see map on figure b)*(map coming by mail)*. These wells were drilled between 1969 and 2001 while exploring for oil and natural gas reserves. These wells are located between five (5) to thirteen (13) miles from State Lands contained in the Five Streams Unit Management Plan, demonstrating the scarcity of past drilling activity in the area. These wells were drilled to depths ranging from 4,252 feet to 5,910 feet into the subsurface. The depth of these wells allowed the testing of the Oswego Sandstone Formation in the areas north, south and east of the unit. This formation was deposited during the Upper Ordovician Period, over 430 million years ago.

At a surface location approximately eight (8) miles northeast of Balsam Swamp State Forest, the Nornew Incorporated - Smith #1 well (American Petroleum Institute (API) # 31-017-22,928) encountered the top of the Devonian Tully Limestone at 1,342 feet, top of the Onondaga Limestone at 2,014 feet, top of the Oriskany Sandstone at 2,068', top of the Lower Devonian Helderberg Limestone at 2,112 feet, top of Silurian Salt at 2,730 feet, top of the Lockport Dolomite at 3,465 feet, top of the Ordovician Oswego Sandstone at 4,017 feet, and top of the Lorraine Shales and Siltstones at 4,158 feet. The well reached a total depth of 4,252 feet and bottomed in the Lorraine Shales and Siltstones. This well was drilled, and completed as a shut-in gas well in 2001.

At a surface location approximately thirteen (13) miles to the southeast of Balsam Swamp State Forest, the Amoco Production Company - Wahlberg #1 well (API# 31-017-10,607) encountered the top of the Devonian Tully Limestone at 2,538 feet, top of Onondaga Limestone at 3,323 feet, top of Oriskany Sandstone at 3,376 feet, top of the Helderberg Limestone at 3,433 feet, top of Silurian Salt at 4,133 feet, top of the Lockport Dolomite at 4,830 feet, top of the Ordovician Oswego Sandstone at 5,348 feet, top of the Lorraine Shales and Siltstones at 5,418 feet, into the earth. The well reached a total depth of 5,518 feet and bottomed in the Lorraine Shales and Siltstones. This well was drilled, and plugged and abandoned as a dry hole in 1974.

At a surface location approximately five (5) miles soutwest of Five Streams State Forest (Chenango #32*)* the Genegantslet Gas & Oil Company, Incorporated - Smith #1 well (API# 31-007-06636) encountered the top of the Devonian Tully Limestone at 2,350 feet, top of Onondaga Limestone at 3,126 feet, top of Oriskany Sandstone at 3,183 feet, top of Helderberg Limestone at 3,223 feet, top of Silurian Salt at 3,963 feet, top of Lockport Dolomite at 4,540 feet, top of Ordovician Oswego Sandstone at 5,734 feet, top of Loraine Shales and Siltstones at 5,805 feet into the earth. The well reached a total depth of 5,910 feet and bottomed in the Lorraine Shales and siltstones. This well was drilled, and plugged and abandoned as a dry hole in 1970.

Regional structure of the area is a homocline that dips (is becoming deeper) to the south-southwest at an average dip angle of approximately one (1) degree or deepens 100 feet per each mile traveled to the south-southwest. The *Geologic map of New York - Finger Lakes Sheet #15, 1970*, depicts progressively older rock units outcropping farther to the north, confirming the southerly dip of strata in the region. Lineament, faulting and anticlinal/synclinal structures in the region generally trend in a northeast to southwest direction. North-south trending faults have also been identified in the region. These structures are thought to be due to compressional stress and resulting strain associated with plate tectonics and the opening of the Atlantic Ocean Basin that began at the end of the Paleozoic Era. Structural reference is available at the *Preliminary Brittle Structures Map of New York, New York State Museum-Map and Chart Series No.31E, 1974*.

II. Resource Demands on the Unit: Mineral Resources

The drilling of the first commercial oil and natural gas well in the United States occurred in northwestern Pennsylvania during the middle 1800's. The results of this drilling activity carried over into neighboring New York State. Eventually this activity extended into western New York and to a very limited extent the areas surrounding what is now the Five Streams Unit.

In 1974, Amoco Production Company drilled the Wahlberg #1 well to a depth of 5,518 feet into the earth. The well was located approximately thirteen (13) miles southeast of Balsam Swamp State Forest in the Town of Guilford, Chenango County. The well tested the Oswego Sandstone located at a depth of 5,348 feet into the earth. No production was reported, and the well was plugged and abandoned in 1974.

In 1993, Quaker State Corporation drilled the New York State Reforestation Area #6 Well #1 to a depth of 6,886 feet into the earth. The well was located approximately seven (7) miles northwest of Five Streams State Forest (Chenango #12) in the Town of Taylor, Cortland County. The well tested the Trenton/Black River Formations located at depths of 6,179 feet and 6,485 feet into the earth respectively. The company reported a show of gas in the Black River Formation. No production was established and the well was plugged and abandoned in 1993. Fields drilled prior to 1986 are shown on the *New York State Gas Field Map - Department of Environmental Conservation - Division of Mineral Resources, 1986*

Natural gas drilling activity has recently (2002 to present) taken place in Broome County to the south, Cortland County to the west, Madison County to the North, and Chenango County. This drilling activity has targeted a number of different geologic formations.

In Broome County, approximately twenty (20) miles to the south of Five Streams State Forest (Chenango #32) the Lower Ordovician Trenton / Black River Formations have been the main focus, at depths of approximately 10,000 feet into the earth. To date, no production has been reported. In Cortland County, the Oriskany Sandstone has been tested at depths of approximately 2,000 feet. The closest well is Belden & Blake Corporation - Frink #1 well, located in the town of Taylor, approximately five (5) miles northwest of Five Streams State Forest (Chenango # 19). This well was drilled and subsequently plugged and abandoned in 2003. To date no production has been established.

In Madison County, drilling has continued in the commercial development of the gas production from reservoirs found in the Oswego Sandstone and Herkimer Formations at Bradley Brook Field. These reservoirs are located at depths from 2,200 feet to 3,000 feet into the earth, and approximately twenty (20) miles north of Balsam Swamp State Forest (Chenango #17).

Chenango County has experienced recent drilling activity. In 2001, Nornew, Incorporated drilled the Smith #1 well. This well is located in Smyrna Township, approximately thirteen miles southeast of the Unit. It was drilled to a depth of 4,252 feet into the earth and tested the Oswego Sandstone Formation. Presently the Company is evaluating the economic viability of connecting it to a pipeline system. The only other recent drilling activity in the county is two wells drilled by EOG Resources, Incorporated, during 2003. These wells are located in the towns of Otselic and Preston, approximately ten (10) miles north and southeast respectively from the unit. The wells were permitted to a depth of 3,000 feet and should have tested the Oriskany Sandstone. Both wells were subsequently plugged and abandoned.

V. Goals & Objectives

A. Land Management Objectives

5. Permit surface distrubance associated with natural gas exploration, production and development.....

Any party desiring to procure minerals, rocks or oil & gas resources (or for the use of those minerals in the case of gas or liquid storage) from the mineral estate under state lands included in this unit management plan, must obtain contractual rights (such as a lease contract) to those minerals from the appropriate state entity administering those resources. The party must also obtain appropriate consent (temporary revocable permit) from the state to access the surface estate during operations. Prior to the commencement of operations the appropriate permits must be obtained. These procedures are further outlined below.

Any activity involving the procurement of oil and gas resources and/or storage of gas and liquids in the subsurface on state lands in this unit management plan are administered by the NYSDEC Division of Mineral Resources. The procurement of minerals and rocks (inorganic substances), including the solution mining of minerals (such as salt) on these same state lands are administered by the Office of General Services. All activity associated with mining minerals and rocks, solution mining of minerals and oil & gas drilling, including production, are regulated by the NYSDEC Division of Mineral Resources (including the issuance of mining permits and drilling permits).

The surface estate of these State lands is managed through the NYSDEC Division of Lands and Forests or Division of Fish, Wildlife and Marine. In the event the surface estate is to be used in the evaluation and/or extraction of mineral resources from state lands, a Temporary Revocable Permit (TRP) must be obtained from the NYS DEC Division of Lands and Forests prior to conducting any operations. It should be noted that if the mineral estate is under a lease agreement, only the lessee, or entities authorized by the Lessee, will be issued a TRP for these purposes.

It is NYS DEC policy to recommend excluding operations in surface areas with sensitive habitats (stream banks, wetlands, steep slopes, rare communities etc.) or intensive recreational use. Sites to be excluded from drilling, production and/or other surface occupancy for mining, are listed in appendix G, Maps "Recommended Exclusions for Surface Occupancy." Any proposal for mineral development other than oil and gas would require SEQR review.

In the event a party has an interest in exploring and developing natural gas reserves on the Unit, the NYSDEC will receive requests to nominate specific lands for leasing of the mineral rights. Prior to leasing lands where of the mineral estate is owned by New York State, a thorough review of the lands nominated for leasing will be conducted to determine: (1) which area can be leased will full rights granted (100% surface entry and no special conditions required), (2) which areas may require special environmental and safety conditions and (3) which areas may be leased with no surface disturbance/ entry conditions (non drilling clause). This review is conducted by the area's land manager (Division of Lands and Forests) in coordination with the Division of Mineral Resources. A tract assessment is then conducted that identifies sensitive resources of the unit. These resources include, but are not limited to natural areas, wetlands, riparian zones, steep slopes, recreational sites, unique ecological communities, habitat of rare and endangered species, archeological and cultural sites and scenic vistas and view sheds. If it is determined that natural gas exploration and development can proceed on the Unit, a lease sale is conducted. The DEC Division of Mineral Resources is the gas leasing agent for these state lands. Lease sales are then conducted through a competitive bid process administered by the Division of Mineral Resources and in accordance with Article 23, Title 11 of the Environmental Conservation Law and State Finance Law. Revenues from State Reforestation Areas and Multiple Use Areas (State Forests) are deposited into the General Fund while revenues from Wildlife Management Areas are deposited into the Conservation Fund. In the event leases are granted and the drilling of a well is desired by the lessee on the leased property, an Application for Permit to Drill, Deepen, Plug Back or Convert a Well Subject to the Oil, Gas and Solution Mining Law (form 85-12-5) must be submitted to the Division of Mineral Resources. Site-specific impacts will then be identified by NYS DEC staff during review process and inspection of the proposed well site. The Generic Environmental Impact Statement On the Oil, Gas and Solution Mining Regulatory Program (Draft, 1988) is used to guide the Department in determining whether the proposal will have a significant impact on the environment. Conditions are then attached to the drilling permit as well as the Temporary Revocable Permit (TRP) which covers the mitigation and/or control of surface disturbances.

In the event underground pipelines are planned to transport natural gas across state lands; the Division of Mineral Resources in conjunction with the Division of Lands and Forests will coordinate with the mineral estate lessee to determine the best route for the pipeline(s). It should be noted that any pipeline greater than 1,000 feet in length and/or containing pressures greater than 125 pounds per square inch are regulated by the New York State Public service Commission.

Once the proposal is approved, a drilling permit with site specific conditions is issued by the Division of Mineral Resources along with a Temporary Revocable Permit issued by the Division of Lands and Forests. These permits are administered by their respective programs and are designed to prevent and/or mitigate

environmental impacts. Site inspections are conducted by the Division of Mineral Resources to ensure compliance with Article 23 of the Environmental Conservation Law and 6NYCRR Part 550 - 559. The Division of Lands and Forests or Fish and Wildlife will also inspect the site to ensure compliance with the TRP.

6. Prohibit commercial extraction of mineral and rock from the Unit.

Parties seeking to explore and procure mineral and/ or rock (including salt) from State lands must be issued a permit, consent or lease of such duration as the Commissioner may deem advisable, from the General Services Office, under Article 7 of the New York State Consolidated Laws/Public Lands. Prior to operations, a Mining Permit or Drilling Permit in the case of solution mining, must be obtained from the Division of Mineral Resources and a Temporary Revocable Permit (for access and use of State land) must be obtained from the Division of Lands & Forests. Mining operations are regulated by the Division of Mineral Resources.

APPENDIX XII

Trees on the Unit

Common Name	Scientific Name	Common Name	Scientific Name
Alder, Speckled	***Alnus rugosa***	**Butternut**	***Juglans cinerea***
Apple	***Malus spp.***	**Cedar, Northern white**	***Thuja occidentalis***
Ash, Black	***Fraxinus nigra***	**Cherry, Black**	***Prunus serotina***
Ash, White	***Fraxinus americana***	**Cherry, Pin**	***Prunus pensylvanicum***
Aspen, Bigtooth	***Populus grandidentata***	**Elm, American**	***Ulmus americana***
Aspen, Quaking	***Populus tremuloides***	**Elm, Slippery**	***Ulmus rubra***
Basswood	***Tilia americana***	**Fir, Balsam**	***Abies balsamea***
Beech, American	***Fagus grandifolia***	**Hawthorn**	***Crataegus spp.***
Birch, Black	***Betula lenta***	**Hemlock, Eastern**	***Tsuga canadensis***
Birch, Yellow	***Betula alleghaniensis***	**Hophornbeam, American**	***Ostrya virginiana***
Buckthorn, European	***Rhamnus cathartica***	**Hornbeam, American**	***Carpinus caroliniana***
Larch, Dunkeld	***Larix X eurolepis***	**Pine, Red**	***Pinus resinosa***
Larch, European	***Larix decidua***	**Pine, Scotch**	***Pinus sylvestris***
Larch, Japanese	***Larix leptolepis***	**Pine, White**	***Pinus strobus***
Locust, Black	***Robinia pseudoacacia***	**Serviceberry**	***Amelanchier arborea***
Maple, Mountain	***Acer spicatum***	**Spruce, Black**	***Picea mariana***
Maple, Red	***Acer rubrum***	**Spruce, Norway**	***Picea abies***

Common Name	Scientific Name	Common Name	Scientific Name
Maple, Striped	***Acer pensylvanicum***	**Spruce, Red**	***Picea rubens***
Maple, Sugar	***Acer saccharum***	**Spruce, White**	***Picea glauca***
Oak, Red	***Quercus rubra***	**Sumac, Staghorn**	***Rhus typhina***
Pear	***Pyrus communis***	**Tamarack**	***Larix laricina***
Pine, Jack	***Pinus banksiana***	**Willow**	***Salix spp.***

APPENDIX XIII

Public Comments and Response

Develop hiking trails to connect all properties on the Unit.

A new hiking trail, 16 miles in length with 4 miles over existing trails, 3 miles over town road, and 9 miles requiring new construction will be established with a volunteer organization. A shorter loop trail will use sections of the longer trail and be approximately 11 miles in length with 3 miles over existing trails, 7 miles over town roads and 1.3 miles requiring new construction (Public Use and Recreation Objective 11).

Preserve historic sites and apple trees.

Cultural resources 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, including apples, garden shrubs and other ornamental plants associated with cultural sites will not be harvested and efforts will be made to sustain non-invasive vegetation through thinning and pruning. Twenty-three sites of cultural significance have been inventoried and specific management strategies will be developed to ensure long term preservation. Any archeological research conducted on the Unit will require a permit issued through the State Museum and the Agency Preservation Officer (Land Management Objective 10).

Close Pucker Street (Pond access road) with rocks.
Rebuild the road to Pucker dam and don't try to block road against ATVs.

The access road into Pucker Pond will be rehabilitated and a parking area established adjacent to the dam. The access road will be rehabilitated and a gate installed at its terminus to prevent vehicles from driving onto the dam (Public Use and Recreation Objective 4).

Give ATVs a legal place to ride

Public ATV riding is not compatible with the goal of protecting the Units' natural and cultural resources. The network of wetlands, creeks and tributary streams that occupy the Unit would be adversely impacted by ATV use. The predominant soil types on the Unit are poorly drained and ATV trail development would be costly to establish and maintain. Current illegal ATV use on the Unit has resulted in soil erosion, stream sedimentation, damage to trees and other vegetation and impacts to cultural resources (Public Use and Recreation Objective 2b). A new trail for individuals with a qualifying disability will be constructed on Balsam Swamp State Forest. Trail head parking will be located adjacent to County Route 7 and the trail will proceed west through a diversity of habitats. This trail will be constructed to ensure that all people have the opportunity to enjoy the benefits of State forests. A sign with rules, regulations and map will be installed at the trailhead parking site (Public Use and Recreation Objective 2a).

Designate State Forest (name) on maps in Appendix

Five Streams, Red Brook and Balsam Swamp State Forests will be identified on Appendix maps.

Add raven to bird list

Raven has been added to bird list (Appendix III: Breeding Birds on the Unit)

Add crappies and blue gill to species of fish present at Balsam Pond

Crappies and blue gill have been added to species of fish present (Information on the Unit: H. Fishery Resources)

No jet skies on Balsam Pond

A regulation to prohibit gas powered motors greater than 25 horsepower on Balsam Pond (Public Use and Recreation Objective 6d) will be developed that will effectively restrict jet skies from the pond.

(Install) an emergency phone system at Balsam Pond (Campground)

An emergency phone system will not be installed at Balsam Pond. It is expected that cellular phone service will eventually be available at the campground eliminating the need for communication infrastructure on State Forests. Public phone service is currently available in East Pharsalia, approximately three miles from the campground. NYS DEC Forest Rangers make routine visits to the campground during times of peak use and will respond to emergency situations.

(Produce) a brochure describing allowable uses of State Forests.

A visitors guide will be produced (Public Use and Recreation Objective 5b) with information about the Unit and all applicable rules and regulations.

Improve Baker's Pond to include more camping opportunities.

Instead of developing multiple campgrounds on the Unit, camping opportunities will be improved at Balsam Pond while fishing, boating and other day-use activities will be improved at Baker's Pond (Public Use and Recreation Objective 1b). Informal camping is permitted on all State Forest land except within 150' of a road, trail, stream, pond or spring (Appendix VI: Department Laws, Rules, Regulations and Policies; B. Part 190 Use of State Forests Section 190.3)

State that snowmobile trails will be constructed via timber sale tradeoffs.

In New York State revenue generated from snowmobile registration is dedicated to the development and maintenance of snowmobile trails that are part of the State Snowmobile Trail System. This is the primary funding source by which new trail construction will occur on the Unit. Snowmobile trails will only be constructed via timber sale tradeoffs when such trails are first necessary to facilitate logging activities including the skidding, forwarding and trucking of forest products. Upon completion of a timber sale contract, trails, roads and other infrastructure established to facilitate logging may be authorized for snowmobile use. Construction of the 1.8 miles of new snowmobile trail proposed for the Unit and located off-road will be the responsibility of the Ridge Riders Snowmobile Club (Public Use and Recreation Objective 10).

Permit motors in excess of 25 horsepower on Balsam Pond.

Considering all available boating opportunities in Region 7, there are relatively few lakes or large ponds that are open to the public providing opportunities for quiet, boating, fishing and wildlife observation without intrusion and disturbance from large power boats or personal water-craft. Balsam Pond has a completely undeveloped shoreline with a relatively "wild", natural environment that is often lacking on many public access water bodies. It provides ideal conditions for low-impact water-based recreation that is also compatible with a rustic camping experience at the Balsam Pond camping area.

Establishing a horsepower restriction will improve safety on Balsam Pond. The north end of the Pond is shallow and has many stumps at or immediately below the surface that pose a hazard to high speed boating. Establishing a horsepower restriction will reduce high speed boating while at the same time accommodate those users who have gas powered motors. The Pond is also used by people with small water craft such as jon boats, canoes, kayaks and boats with either electric or small horsepower motors. Restricting horsepower will reduce the size of the wake created by boats and minimize the potential impact on other pond users.

Noise pollution from high powered motors has a negative impact on both campers and other boaters at Balsam Pond. The excessive noise from high powered motors diminishes people's outdoor experience which is one of the primary reasons for recreating on State Forests. Restricting horsepower will reduce the impact of noise on other boaters and those using the campground which is immediately adjacent to the pond. Restricting high

powered motors is the most effective approach to ensure a safe and enjoyable outdoor experience for all users at Balsam Pond.

Propose motor restrictions on Balsam Pond to less than 10 horsepower.

Gas power motors in excess of 25 horsepower will be prohibited on Balsam Pond (Public Use and Recreation Objective 6d). Motors less than 25 hp will limit excessive speed and noise to ensure a safe and enjoyable outdoor experience for all users of the Pond and campground. The 25 hp restriction will be consistent with hp restrictions on Whitney Point Reservoir and Long Pond, both popular area water bodies.

Include a list of local services at a Kiosk at Balsam Pond.

The kiosk at Balsam Pond will include information about local services (Public Use and Recreation Objective 5a).

Produce maps with designated horse trails and rules for horses.

Designate horse trails and develop and an Adopt-A-Natural Resource Agreement (AANR) with horse user groups.

There are no proposed or designated horse trails on the Unit. Horses are permitted on all State Forests except where restricted by signs. Horse trail development and infrastructure are expensive facilities. The Sherburne office currently administers the multiple use Brookfield Trail System for equine recreational pursuits. Budget and manpower constraints prohibit development of another horse trail system within the Sherburne working circle. The Department may consider a horse trail that passes through the Unit if a horse user group is willing to take on the responsibility of adopting such a trail and permission is obtained from adjacent private property owners. An Adopt-A-Natural Resource agreement between the Department and a horse user group would provide the opportunity to delineate a corridor that offers a safe and enjoyable riding experience while at the same time protecting the Units' natural and cultural resources. As with existing agreements, the user group would take on the responsibility of budgeting, material expenses, construction and maintenance.

Three kiosks will be installed on the Unit (Public Use and Recreation Objective 5a) with a map of the Unit showing recreational facilities and a list of rules and regulations for the appropriate use of the State Forests. Unit maps will be made available to local towns for posting on community bulletin boards. A visitors guide will be produced (Public Use and Recreation Objective 5b) with information about forest history, ecology and public use facilities.

Keep snowmobile trails open, marked and made available for all users

Segments of the snowmobile trail will be open, marked and made available to other users.

Make (natural gas) drilling access roads open as (recreational) trails.

Access roads associated with natural gas development will be gated and closed to vehicle traffic upon completion of production activities (Land Management Objective 5) . Sections of access roads may be considered for recreational uses if such uses are consistent with efforts to maintain public safety.

Improve enforcement of ATV use on State land.

NYS DEC Forest Rangers and Environmental Conservation Officers (ECO) are committed to preventing the illegal use of ATVs on State lands. Through enforcement and public education, it is anticipated that the environmental impacts of ATV use on the Unit will be reduced.

Designate Jam Pond a unique area while improving viewing and access.

Make Jam Pond inaccessible "with a border fence".

Formal DEC Unique Area designation was assigned to newly acquired properties with exceptional natural resource values using funds from the 1972 and 1986 Environmental Quality Bond Acts. Jam Pond has exceptional values but has been in state ownership prior to establishing the Unique Area classification. People trampling on the sphagnum mat that floats atop Jam Pond has resulted in impacts to sensitive emergent vegetation. Public use will be restricted to prevent further deterioration of vegetation at Jam Pond. Protection strategies will focus on public education and on-site signage restricting access onto the sphagnum mat. There are no designated trails planned for Jam Pond (Land Management Objective 9) .

Put (recreation) trails along State Forest boundary lines.

Recreation trails on the Unit are located along corridors where impacts to water quality, cultural resources and potential conflicts with private landowners are least likely to occur. Resource protection and safe public access, not proximity to boundaries, guide trail design. Some trail segments use existing boundaries while other segments pass through the interior of the Unit.

APPENDIX XIV

State Environmental Quality Review

NEGATIVE DECLARATION

Notice of Determination of Non-Significance

Date: June 15, 2009 **Identifying # 2009-SLM-7-271**

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The NYS Department of Environmental Conservation as lead agency, has determined that the proposed action described below will not have a significant environmental impact and a Draft Environmental Impact Statement will not be prepared.

Name of Action: Adoption of the Five Streams Unit Management Plan

SEQR Status: **Type 1 X**
Unlisted ___

Conditioned Negative Declaration: **___ Yes**
X No

Description of Action: The Five Streams Unit Management Plan advances the practice of sustainable forestry to conserve biodiversity and enrich local community life in western Chenango County. It is based on a belief that healthy forests are essential for the long term cultural, environmental and economic health of rural communities. The 9,634 acre Unit includes Five Streams, Red Brook and Balsam Swamp State Forests. The Plan defines goals and objectives for conserving biodiversity and enhancing opportunities for public use and recreation.

To conserve biodiversity, management actions will support diverse ecological conditions, maintain landscape connectivity and protect 3,048 acres of wetlands, riparian zones, natural areas and steep slopes. Timber will be harvested on 5,976 acres over the next 20 years using even and uneven aged silvicultural systems. Surface disturbance associated with exploration, development and production of natural gas is excluded from 5,229 acres or approximately 54% of the Unit.

Public use and recreation opportunities will be enhanced by improving existing facilities at Balsam Pond, Baker Pond and Pucker Pond. New snowmobile, motorized access (CP-3) and hiking trails will be constructed. Three existing parking areas will be upgraded.

At Balsam Pond, the campground, boat launch and day use area will be upgraded to improve public safety, protect water quality and provide additional camping, boating, and fishing opportunities. Six new camp sites will be constructed and four existing sites will be eliminated, increasing the total to 14 sites. A 0.3 mile loop

road will be constructed to access the six new campsites. A concrete pad for a rented sanitary unit, an adjacent parking site for camping and service vehicles will be constructed to replace the existing pit privy. The existing boat launch and fishing site will be replaced with a reinforced concrete launch and pier. The informal vehicle and trailer parking area that currently exists at the launch will be replaced with designated trailer, car and accessible parking sites. The area adjacent to the pier will be excavated to deepen the water and improve the fishery.

At Baker Pond, the dam and emergency spillway will be reconstructed to improve dam safety and protect water quality. A viewing platform with a new trail and parking area will be constructed to improve access to the pond. Dam reconstruction will include replacing the drop box and sluice pipe and grading the emergency spillway. The platform will have seating and a table and will be accessed by a new trail and parking area.

At Pucker Pond, a 0.3 mile road will be rehabilitated and a new parking area will be constructed. Road rehabilitation will require installation of new culvert pipes and gravel fill over the existing roadbed.

Additional management activities planned for the Unit include the construction of 1.5 miles of new snowmobile trail, construction of a 0.75 mile motorized access trail with new trailhead parking, and the establishment of 10.3 miles of new hiking trails that will connect to existing trail corridors. New trails will provide safe and satisfying access for all people while at the same time ensuring that the Unit's natural and cultural resources are protected. Three existing parking areas will be upgraded to improve access.

Location: The Five Streams Unit consists of three State Forests in the Chenango County Towns of German, McDonough, Pharsalia, Pitcher and Smithville.

Reasons Supporting This Determination: Activities planned for the Unit will be covered by the following Generic Environmental Impact Statements: State Forest Commercial Product Sales Program, Oil, Gas and Solution Mining Regulatory Program, Red Pine Plantation Clearcut Program, Plan and Final GEIS for Conserving Open Space in New York State and the State Forest Recreation Management Program.

Activities which would require site specific environmental review (SEQR) include: site preparation with herbicide and clearcuts larger than 40 acres. If, after final approval of the plan, activities are added to the plan to provide improved management of the Unit and are not covered by this Negative Declaration or cited under the Generic Environmental Impact Statements, the Department will undertake a site specific environmental review for such activities. Natural gas well pad development will require additional impact studies.

Activities in the plan will be performed in accordance with the standards and policies set forth in the following DEC documents: Continuous Forest Inventory Handbook, State Forest Multiple Use Management Handbook, Unpaved Forest Roads Handbook and the Timber Management Handbook. In addition, activities in the plan will be guided by the Environmental Conservation Law (ECL), Best Management Practices (BMP's), the expertise of Department foresters and biologists and the views expressed by the participating public.

Forest Products Harvesting

Forest products harvesting is covered under the Generic Environmental Impact Statement on the State Forest Commercial Product Sales Program. Over the next twenty years, 5,976 acres of forest will be harvested on the Unit. Trees growing within riparian zones, wetlands, natural areas, steep slopes and historic and other sites

vulnerable to disturbance on 3,048 acres will not be harvested. Noise and visual impacts from harvesting activities are temporary and individual forest stands are harvested on a twenty year rotation. Impacts to water quality are mitigated through the implementation of Best Management Practices, including installation of stream crossing structures, siting of skid trails and log decks on well drained soils, and site restoration upon completion of harvest. To ensure public safety, signage will be posted at access points adjacent to harvest areas to alert forest users to logging operations**.**

Natural Gas Exploration, Production and Development

The compatibility of natural gas exploration, production and development activities will be determined during the tract assessment process on a case by case basis. Individual tract proposal reviews for each forest within this Unit have been completed with determinations made regarding exclusion zones. Any parcel designated for non-surface entry in the lease will no longer be subject to the review process detailed above due to the prohibition of surface disturbance(s). Exceptions to the tract assessments are possible if additional analysis, protective measures, new technology, or other issues warrant a change in compatibility status of an area.

The process of locating well sites will be guided by stand management objectives. Options for well site locations will first consider areas with a history of land use disturbances where native flora and soil profiles have been significantly impacted by clearing, tilling and other agricultural practices.

Soils where the depth to the water table is less than 3 feet will be avoided wherever possible. In rare cases when this is not possible, potential impacts can be minimized by seasonal restrictions. These include restricting development and production activities from June 1 to November 1 and from January 1 to March 1 when soil conditions are most resilient to disturbance.

Balsam Pond

There are currently twelve sites at the Balsam Pond public campground. Four sites near the pond will be eliminated to protect the shoreline from camping impacts and relocated away from the pond onto sites with better drainage. Six new campsites will be constructed, increasing the total to 14 sites. New campsites will be accessed by a new 0.3 mile loop road and serviced by a rented sanitary facility. To avoid water and other natural resource impacts, new facilities will be established on moderately well drained Mardin channery silt loam soils and away from poorly drained Volusia soils. Construction activities will be undertaken during dry conditions to minimize soil impacts. Sediment traps, hay bales and other erosion control structures will be installed during construction to mitigate soil and water impacts. The rented sanitary unit will improve water quality and other campground conditions through periodic waste disposal during the summer months.

At Balsam Pond, a reinforced concrete launch, fishing pier and a gravel parking area will replace an informal launch and fishing site. The existing boat launch and fishing site are unsafe and use results in impacts to shoreline vegetation and water quality. The new pier, launch and parking area will establish safe and accessible structures for boating and fishing. New facilities will concentrate recreation in a defined area and reduce impacts to sensitive shoreline vegetation. DEC Fisheries staff will be consulted during project planning and development and all construction activities with comply with Title 6, Part 608 of the New York Code of Rules and Regulations for use and protection of water quality. To avoid sedimentation and other water quality impacts during construction, the water level in Balsam Pond will be drawn down by adjusting a control devise at the dam outflow. When the pond level is drawn down, the area adjacent to the pier will be excavated to deepen the water and improve opportunities for shoreline fishing. Upon completion of

construction the water level will be restored. New campsites, launch, fishing pier and sanitary unit will be accessible to people with disabilities.

Baker Pond

The dam and emergency spillway at Baker Pond are in poor condition. The water level has been temporarily drawn down to relieve pressure on the dam and to prevent soil erosion and other downstream impacts. An engineering and feasibility study has been completed by an independent consultant and reconstruction of the dam and emergency spillway will be undertaken. To avoid sedimentation and other water quality impacts during construction, sediment traps and hay bales will be installed along the pond edge and emergency spillway. To mitigate soil impacts from heavy equipment, all construction activities will be undertaken during dry conditions. Upon completion of construction, exposed soil will be seeded and mulched and the pond level will be restored.

A new platform, trail and parking area will be constructed adjacent to Baker Pond to improve public access for boating, fishing and wildlife viewing. To avoid water and other natural resource impacts, these new facilities will be constructed on well drained Mardin channery silt loam soils. Sediment traps and hay bales will be installed along the pond edge during construction to maintain water quality. All new facilities will be accessible to people with disabilities.

Pucker Pond

The access road into Pucker Pond is no longer passable because of deep rutting, collapsed culvert pipes and standing water. The road will be rehabilitated and a parking area constructed at its terminus to improve access for fishing, wildlife viewing and other day uses. The new road will be constructed entirely within the footprint of the existing road. Filter fabric will be installed to improve stabilization of the new roadbed. Gravel fill will be installed to increase the height of the road bed and improve drainage. New culvert pipes and ditches will be installed to direct water away from the road. To avoid sedimentation and other water quality impacts during construction, sediment traps and hay bales will be installed. To mitigate soil impacts from heavy equipment, all construction activities will be undertaken during dry conditions. Upon completion of construction, exposed soil will be seeded and mulched.

Construct a New CP-3 Trail

A 0.75 mile motor access trail for people with mobility impairments trail (CP-3) will be constructed on Balsam Swamp State Forest. A parking area will be constructed on an existing log landing using gravel material over filter fabric. The trail will utilize an existing logging road so no additional clearing will be necessary. The new trail will require surface improvements such as grading, ditching and the installation of four culvert pipes. Improvements will ensure that the trail is safe and natural resources are protected.

Establish a New Hiking Trail

On the Five Streams Unit, the trail will use town roads, existing logging/recreational trails and require the establishment of 10.3 miles of new trail connectors that will link existing trail corridors to these connectors. Establishment of the connectors will entail limited tree removal and pruning and brushing. The new trail corridor will be established on well drained Mardin and Lordstown soils and avoid poorly drained Volusia soils. Where wet sites cannot be avoided, footbridges, culverts or gravel over filter fabric will be installed. Access points with town roads will be barricaded to restrict impacts from vehicles. To avoid soil and water

impacts, construction will only be undertaken during dry conditions. Water resources will be protected during construction by installing sediment traps and hay bales around the work area.

Construct a New Snowmobile Trail

Snowmobiling is an important recreational activity on the Unit. The new 1.5 mile trail will connect two segments of the larger New York State Snowmobile Corridor system. The new trail will be established over an existing logging and recreational trail and require no significant tree cutting. A culvert pipe will be installed to protect a seasonal tributary stream. The pipe will be set in stone and covered with filter fabric and compacted gravel. To reduce soil and water impacts, all work will be conducted during dry conditions. All trails will be maintained for safe travel while ensuring the protection of all natural and cultural resources. Trail construction and maintenance will comply with the New York State Snowmobile Development Guidelines.

Upgrade Parking Areas

In addition to new parking areas at Balsam, Baker and Pucker Ponds and the CP-3 trailhead parking area, three existing parking areas will be upgraded to improve access. All sites are currently in an open condition and informally used for parking, therefore no tree removal or clearing will be necessary. The surface will be hardened with stone material and underlain with filter fabric to allow for safe access.

If Conditioned Negative Declaration, provide on attachment the specific mitigation measures imposed, and identify comment period (not less than 30 days from date of publication in the ENB)

For Further Information:

Contact Person: Greg Owens, Senior Forester

Address: NYS DEC, 2715 State Hwy. 80 Sherburne, NY 13460

Telephone Number: (607) 674-4017

For Type 1 Actions and Conditioned Negative Declarations, a Copy of this Notice is sent to:

Appropriate Regional Office of the Department of Environmental Conservation

Chief Executive Officer, Town/City/Village of

Other involved agencies (if any)

Applicant (if any)

Environmental Notice Bulletin - NYS DEC - 625 Broadway - Albany, NY 12233-1750 (Type One Actions Only)

APPENDIX XV

Maps

The following pages contain maps of the Unit.