



New York State Department of Environmental Conservation

2010 Statewide Forest Resource Assessment & Strategy

SUMMARY

Keeping New York State's Forests as Forests



New York State Department of Environmental Conservation

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**INTERNATIONAL YEAR
OF FORESTS • 2011**



A letter from New York's State Forester

Dear Friend of New York's Forests and Trees:

Many New Yorkers would be surprised to learn that our state is one of the most heavily forested states in the country with more than 60% of our land covered with forests - an acre of forest for every resident! We New Yorkers love our forests, woods and trees, and our Department of Environmental Conservation (DEC) has worked for more than a century with many partners to conserve and protect our forests, from the wilderness of the Adirondacks and Catskills, to the beautiful tree-lined streets that grace many of our communities.

Congress in 2008 passed legislation requiring the states to prepare Forest Resource Assessments and Strategies (FRAS) to assess the status of forests in their states and to develop strategies to conserve those forests and to practice sustainable forestry for the future. New York was an eager participant in this national effort, and our final report, *Keeping New York's Forest as Forests*, see www.dec.ny.gov/lands/60829.html, contains many practical recommendations on how landowners, forest stakeholders and federal, state and local governments can work together to sustain the many benefits our forests provide to our society.

In addition, the United Nations General Assembly declared 2011 as the International Year of Forests to raise awareness on sustainable management, conservation and sustainable development of all types of forests. This international effort underscores the importance of forests to people for food, shelter, health and economy, and provides an appropriate and timely backdrop for DEC and all our partners to begin building agreed-upon strategies and turning ideas into actions.

Forests and trees protect water and air quality, shelter us from the sun and wind, sequester carbon, provide wildlife habitat, and generate employment for thousands of people in the forest products, outdoor recreation and tourism industries. With some modest investments in their future as outlined in the report, our trees and forests can remain an important part of New York's future, a future in which we continue to reap the benefits from our rich legacy of forests.

At a time of great environmental and economic challenge, planting trees, practicing sustainable forestry, and conserving our forest lands are among the most cost effective strategies we can take to keep New York green, while building our communities and contributing to the state's economic recovery.

This overview highlights key findings from the extensive Forest Assessment and focuses on the issues and opportunities identified by hundreds of stakeholders. The identified strategies and actions can serve as the basis for a new forestry agenda for the next decade. My hope is that all those interested in the future of all New York's forests will rally behind these ideas and work together to implement these strategies for the common betterment of our forests.

Robert K. Davies
New York State Forester
Director, Division of Lands and Forests
New York State Department of Environmental Conservation

Tom Tidwell
Chief, U.S. Forest Service
Opinion/Editorial
Washington, D.C.



Feb. 3, 2011

International Year of Forests is a time for reflection, action

The International Year of Forests, a United Nations-sponsored celebration to focus the world's attention on the need to sustainably manage the world's trees, is not merely an event but a reminder that we are at the precipice of change. We are guardians who have an obligation to protect and restore our world's forests, grasslands and wetlands, all of which are the source of clean air and water, the protectors of fish and wildlife habitats and the greatest assets to mitigate the effects of global climate change.

The USDA Forest Service is committed to investing in the future of our public lands through our work with partners at home and abroad. The value of our forests cannot be underestimated. In addition to providing clean air and water and wildlife habitat, the livelihoods of 1.6 billion people rely on forests worldwide. At home, one in five Americans depend upon clean water originating in national forests.

In the United States, conservation groups, landowners, businesses and governments at all levels are involved more than ever before in efforts to address environmental and economic challenges on many fronts, including in the development of a new Forest Service Planning Rule that will govern how we manage and conserve America's 193-million acre National Forest System. Our ability to come together now to address a myriad of concerns will have great impact on future generations.

Public and private forests are under substantial stress from the effects of climate change, wildfire, insects and pathogens. Privately held forests also face pressure from development of housing and other real estate – America loses more than 4,000 acres of open space to new building every day. The private forests and rangelands that are being parceled off for housing developments an urban sprawl adversely affect our water supply, our air and our wildlife habitat.

The Forest Service is tackling these issues with an all-lands approach that requires looking broadly across public and private lands to protect the environment and create wealth in rural communities. I have faith that by working with our communities and our partners, together we will be innovators, collaborators and defenders of our precious natural resources. As we find new ways to protect our national legacy, we will also work to create or expand emerging markets at home and abroad, such as for carbon and sustainable bioenergy that can provide landowners with another source of revenue.

It is time for us as a nation and as part of the global community to focus on what's really at risk. Issues affecting our natural resources aren't limited to any single ownership or any specific part of the planet. They extend across boundaries and are best addressed collaboratively. As we move through the International Year of Forests, I urge everyone to become engaged.

Conserving our forests isn't just something that we should choose to do. It is something that we must do.

Tom Tidwell is the Chief of the U.S. Forest Service, an agency of the Department of Agriculture

Assessment Overview

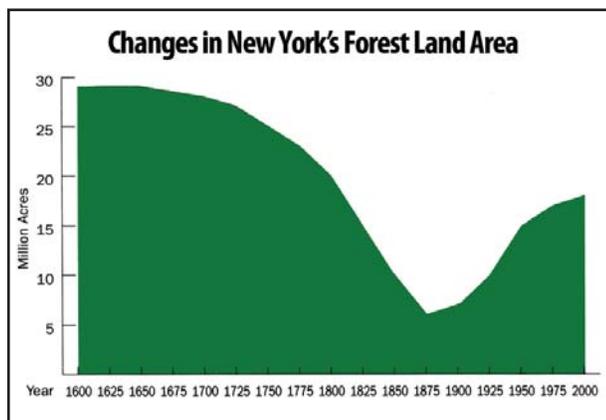
Assessment Overview

New York State is blessed with an abundance of forests. Nearly 63% of the state, about 18.9 million acres, is now forest land. Around the middle of the 19th century, forested land in the state had shrunk to less than 25% primarily from expansion of agriculture and settlement. Yet today, New York has more forest land area than it has had in the past 150 years.

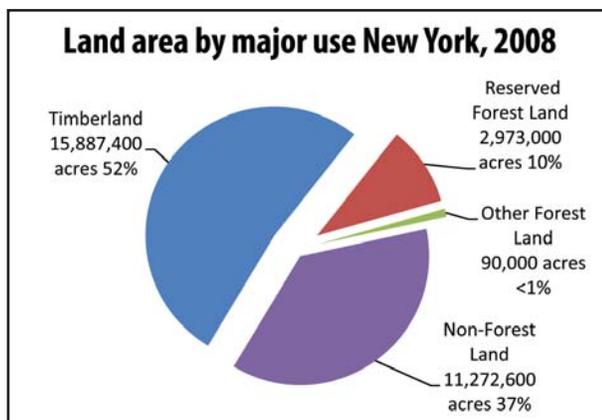
Just as the reforestation of much of New York accelerated during the dawning of the modern conservation movement and the great Depression as a response to both environmental and economic conditions, in the 21st century, there is an urgency to continue the state's many forest conservation, sustainable forestry, reforestation and tree planting efforts as a way to grow our economy and address modern environmental issues like climate change.

Take a moment to think about what New York State would be with little or no forests: A reservoir, your campsite, your town, your street, your yard, where you work, the Adirondack and Catskill Parks, Central Park in New York City. It would be a place where few would like to live, work or to spend their leisure dollars. It would be a place that would be extremely vulnerable to the affects of global climate change.

This document summarizes the issues facing New York's private and public forests and provides strategies and actions identified by our FRAS forest stakeholders. The next step forward is *coordinating* among all forest stakeholders. The goal of this effort is to focus on those actions that we can take together in the coming five years (2010-2015) to keep our state's forests as forests, and to improve the beneficial use of our forests for all New Yorkers.



Graphic 1



Graphic 2

New York's Forests at a Glance



Graphic 3

New York Land Area: 30.2 million acres

New York Forest Area: 18.95 million acres; 63% of land area

State Population:

19 million, nearly one acre of forest per person

Publicly-owned Forest Land Area: 4.5 million acres

Privately-owned Forest Land Area:

14.4 million acres; 76% of forest land area

* Owned by approximately 687,000 private landowners.

Urban Forests:

New York's urban and/or community land area: 3.42 million acres

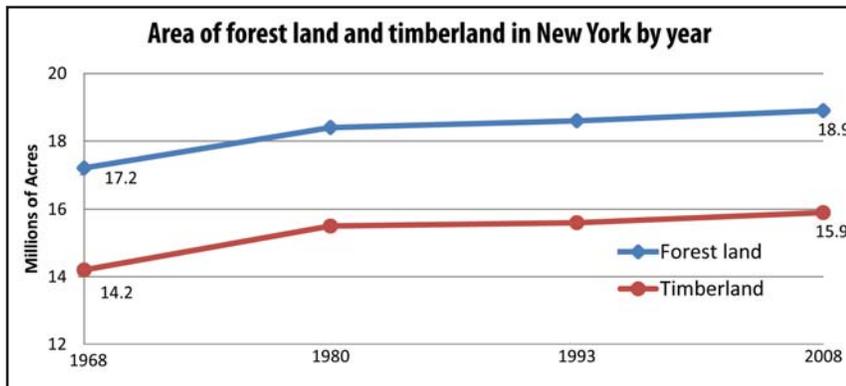
Urban and/or community tree coverage: 1.32 million acres (40.4% of urban and community land area)

Estimated number of urban and/or community trees: 253.6 million

Forest Conditions and Trends

Area of Forest Land

Forest land area continues to increase but at a slow pace, an average of 42,500 acres per year since 1968, and just 20,000 acres since the last forest inventory in 1993. Timberland has also continued to increase slightly. (Graphic 4) At 63%



Graphic 4

forested, New York is unlikely to see any substantial increase in forest land. Loss of forest land in the future will mainly be due to development. New York remains the most heavily forested state in the northeast in terms of total forest land area.

14.4 million, or 76% of New York's 18.9 million acres of forests are owned by about 687,000 private land owners. In spite of the increase in forest area, the size of forest parcels is decreasing and the number of forest owners is increasing. This trend is unlikely to change.

The Maturing Forest

In the late 1800's, abandoned farmland began reverting back to forests mainly by natural regeneration and continue to do so today, although at a much slower rate. The forests and timberlands provided by this period of reforestation continue to mature and to grow in volume.

As of 2008, 57% of timberland, or nine million acres, is in the large tree, or sawtimber size class (Graphic 5), compared with only four million acres just 40 years previous. Poletimber now accounts for 30% and seedling/saplings now account for only 13% of timberland area. This condition can be attributed to prevailing timber management methods, which favor mostly partial overstory removal harvests, as well as the slowdown in "old field" acres reverting to forest.

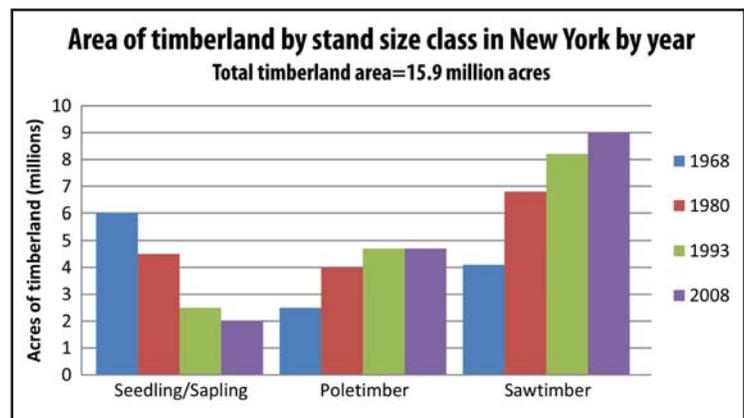
There are two-thirds fewer seedling/saplings acres than in the recent past, and this trend has caused the loss of early successional habitat favored by a variety of important animal species including ruffed grouse, New England hare and certain songbirds, among others.

In addition, the decline in the number of seedling/sapling acres across the state has led, and will continue to lead to a reduction in certain historical benefits, and services derived from our forests. The reduction in the availability of certain commercially valuable tree species, such as oak, cherry and ash, and the loss of certain types of hunting opportunities (grouse and hare) are examples of these current and likely future losses.

Graphic 6 provides another illustration of the maturing of New York's forests. It indicates that the total volume of growing stock trees continues to steadily increase. The 2006 estimate of 26 billion cubic feet is 19 percent

more than in 1991 and averages 1,635 cubic feet per acre. This despite the fact that the annual reduction of tree volume is significantly reduced each year by timber harvest and natural mortality. This significant build-up of forest woody material indicates forests are able to contribute

TIMBERLAND: Many of the charts in this section show trends for "timberland" and not all forest land. The U.S. Department of Agriculture (USDA) Forest Inventory and Analysis (FIA) program defines timberland as a subset of forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization (i.e. – not in reserved forest status). Approximately 84% of all forest land in New York is currently considered timberland. The majority of "reserved forest land" in New York, nearly 3.1 million acres, is made up of the Adirondack and Catskill Preserve and State Parks. The data collected on timberland is representative of most forest land in New York.



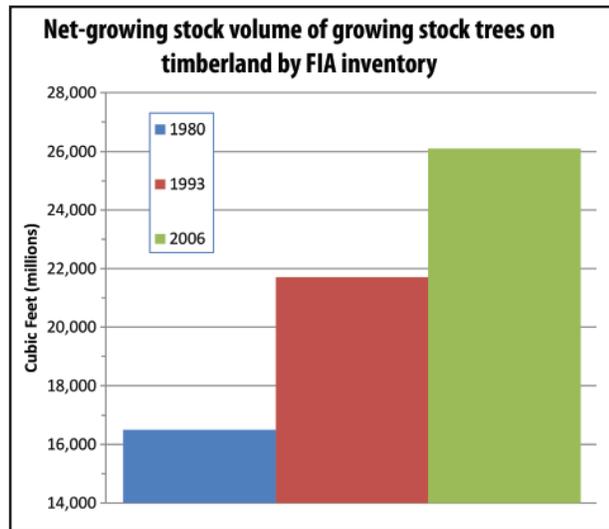
Graphic 5

by providing economic activity opportunities, as well as provide for the sequestration of increased levels of carbon that help fight atmospheric levels of carbon dioxide.

Shift in Species Composition

The number of trees by species is a basic component of forest inventories, and is used to tell a great deal about not only current conditions, but what to expect in the future.

Between 1993 and 2008, several important tree species, sugar maple, northern red oak, aspen (sp.), American beech and spruce (sp.) showed decreases or negligible growth in the number of growing stock trees. This reverses an historical trend for most of these species which for many decades had shown solid increases in number of trees. Other important species such as black cherry and eastern white pine indicate little increase in numbers over the same time period. Red maple stands out as indicating a sizeable 13% increase in numbers of trees over 5 inches, and is the



Graphic 6

highest percent increase for all commercial species. This continues a long-term trend for red maple, and indications from another inventory measure, seedling/sapling trees (those less than 5 inches in diameter), indicate this trend is likely to continue.

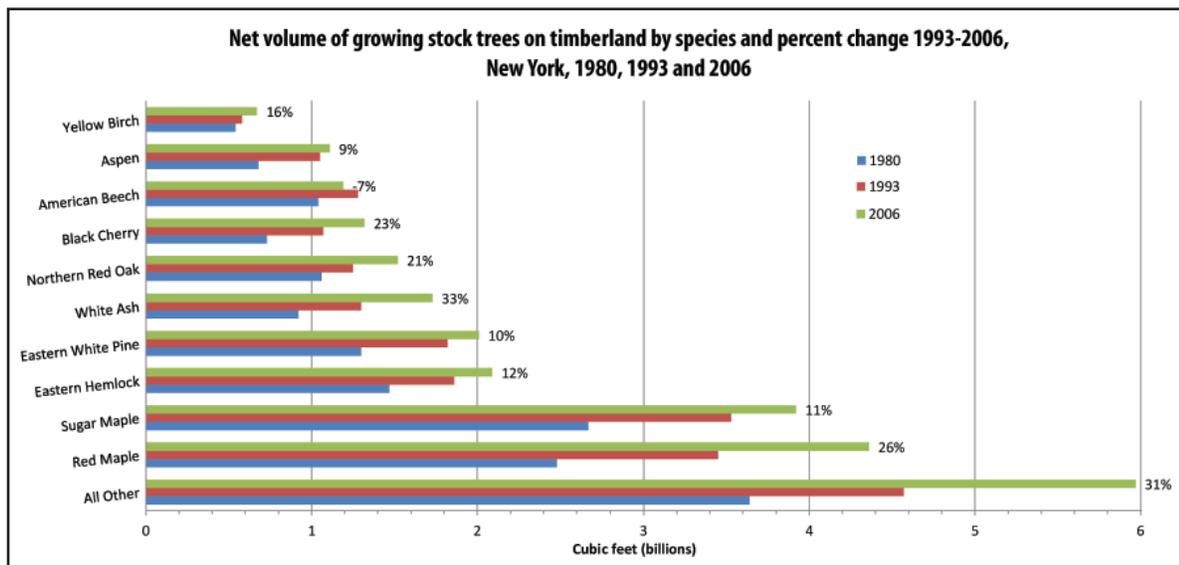
American beech is a good example of how pests and diseases can impact forest regeneration and composition. In New York State, beech is greatly impacted by beech bark disease, which kills larger trees and promotes heavy root sprouting. Some beech continue to set seed promoting seedling/sapling growth. These numerous young beech often interfere with regeneration of other more desirable species, yet will not survive to maturity.

The reasons for the illustrated changes in species composition are numerous, and are a result of complex interactions of forest harvesting practices and changes in



Paul Wray, Iowa State University, Bugwood.org

Red maple (*Acer rubrum*) has taken over sugar maple as the most common tree in New York forests.



Graphic 7

overall land use practices with ecological issues such as invasive forest pests, white-tailed deer populations, and climate change.

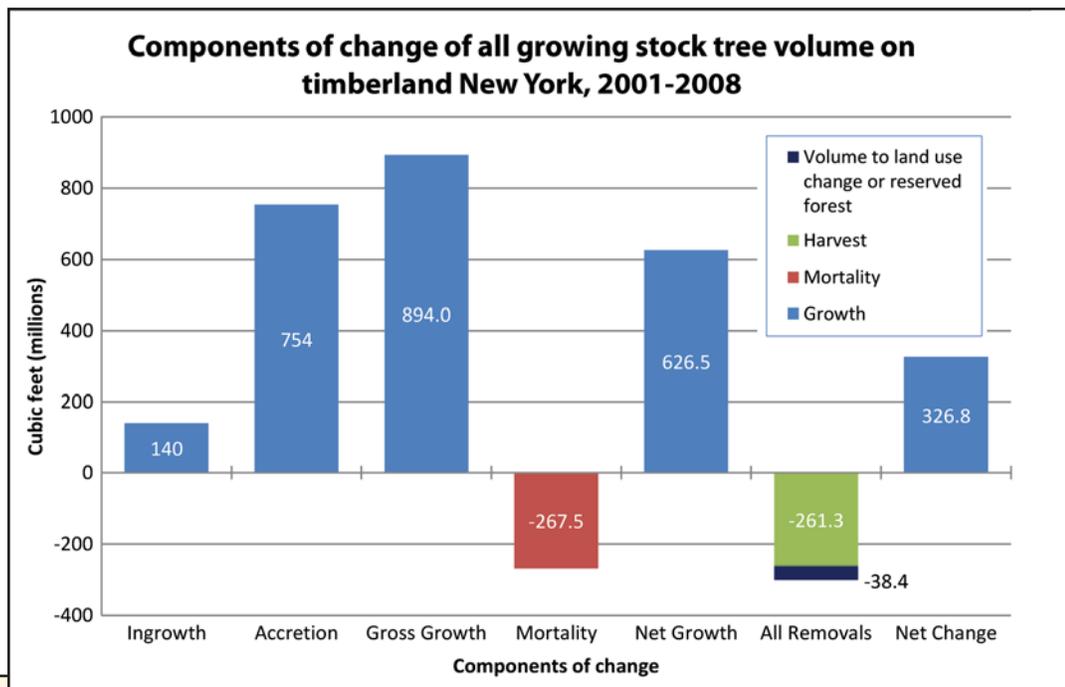
Components of Volume Change

Robust and well-managed forests supply a continuous flow of products without impairing long-term productivity. Unlike fossil fuel, forests are alive and renewable. One way to judge the sustainability of a forest is to look at the components of annual change in inventory volume – growth, removals and natural mortality.

During the last 50+ years in New York, the growth of trees has greatly outpaced mortality and removals of trees for various purposes. (Graphic 8) The most recent inventory revealed that since 2001, on an average annual basis, gross growth has totaled 894 million cubic feet. Annual mortality averaged 267 million cubic feet, resulting in a net growth of 626 million cubic feet. The removal of trees due to both harvesting and land use change and reversion to reserved

status, averaged nearly 300 million cubic feet., leaving an annual surplus or net change of about 327 million cubic feet. Stated another way, the ratio of growth to removals averaged 2.1:1 for the period 2001-2008.

While this growth to removal ratio reflects overall good news about the sustainability of New York’s forests, there are underlying concerns when comparing the growth to removal ratio of individual species. For example, certain species such as red maple have much higher growth to removal ratios than average, while other species such as the oaks and American beech have ratios closer to 1:1, and in the case of beech less than 1:1. Such disparate ratios reflect various influences on the forest such as type of forest management/harvesting practices, harvesting intensity of commercially important species and other ecological factors. They also indicate the New York’s forests are changing, and, without intervention on many fronts, will change our forests and the amenities and benefits they provide in profound ways.



Graphic 8

“Accretion” is the growth on existing trees over 5” in diameter (or, more accurately, diameter at breast height - “dbh”) that were counted at the previous inventory. Trees are not counted in the volume or growth estimates until they are at least 5”dbh.

“Ingrowth” is the estimated volume contained in trees that have become (grown to) 5” or larger in dbh since the previous inventory, and are now included as “growing stock”.

INGROWTH + ACCRETION = GROSS GROWTH
 GROSS GROWTH – MORTALITY = NET GROWTH
 NET GROWTH – ALL REMOVALS = NET CHANGE

Forest Health Issues and Trends

Invasive insects and diseases

Our forests are facing accelerating threats from invasive insects, plants and diseases, often brought into our country through international trade. The US Forest Service has identified invasive species as one of the four major threats to the nation's forests and rangelands.

These alien invaders have the potential to destroy millions of acres of trees, and even eliminate certain species from our ecosystems, and have done so in the past. They can drastically alter wildlife habitats, harm water quality, and reduce carbon sequestration by our forests. In addition, they can devastate forest-based industries, restrict recreational opportunities and damage the tourism industry. Forest pests can damage the health of our watersheds, with consequences for human health. The most significant impacts may be in communities and urban areas where invasive insects or diseases can threaten and kill large numbers of trees, leading to huge costs for tree removal, protective treatments and tree replacements.

Historically, exotic diseases have taken the greatest toll on New York's trees and forests. American chestnut, elm and butternut have been virtually wiped out of our rural and urban forests by chestnut blight, Dutch elm disease and butternut canker. American beech, while still widely present in our forests, has been significantly impacted by beech bark disease which degrades the wood's value, reduces tree productivity and vigor and ultimately kills trees. New diseases such as oak wilt, sudden oak death (also known as *P. ramorum*), and thousand cankers of walnut also threaten New York trees, but by far, our most serious forest health problems in recent years have come from invasive, exotic insects.

The Asian longhorned beetle (*Anoplophora glabripennis*) (ALB) was first discovered in New York City in 1996. It kills a wide variety of hardwood trees and has destroyed maple trees in New York City's Central Park, and in Queens, Kings (Brooklyn), Richmond (Staten Island) and Nassau Counties. The sugar maple, symbol of the Northeast and the backbone of the lumber, tree nursery, maple syrup and fall foliage tourism industries, is most at risk. If Asian longhorned beetle is not eradicated, it could wipe out much of the sugar maple population with consequent damage to maple-related industries, and cost communities and homeowners billions of dollars for tree removals and replacement alone.



Asian Longhorned Beetle (*Anoplophora glabripennis*)
Kenneth R. Law, USDA APHIS PPQ, Bugwood.org

The United States Department of Agriculture (USDA) Animal and Plant Health Inspection

Service (APHIS) has a lead role in detecting, containing and eradicating ALB. Their primary objective is to protect the forest products industry, the biological diversity of our hardwood forests and park lands, and the quality of the urban environment from the destructive effects of ALB through its containment and eradication. The first projected date for eradication of ALB from New York City was to be 2003. As a result of budget cuts the estimated eradication date has moved beyond 2020. The longer any pest is in the landscape, the greater the opportunity and probability it will infest new sites.

<http://www.dec.ny.gov/animals/7255.html>



Emerald ash borer (EAB) (*Agrilus planipennis*), another invasive, exotic tree pest, was first identified in New York State June 2009, in Randolph,

Cattaraugus County. In 2010, EAB was found in 6 other NY counties: Steuben, Livingston, Monroe, Genessee, Ulster and Greene. This Asian beetle infests and kills all North American ash species (*Fraxinus sp.*) including green, white, black and blue ash. With EAB now discovered in 15 States and 2 Canadian provinces, the Federal government no longer considers this pest "eradictable" (unlike ALB). DEC's management strategy for EAB is geared to "slow the

spread” or, “Slow Ash Mortality” – SLAM. The goal is to use regulatory and management tools to restrict the growth and spread of EAB populations and slow the rate and extent of ash infestation and death.

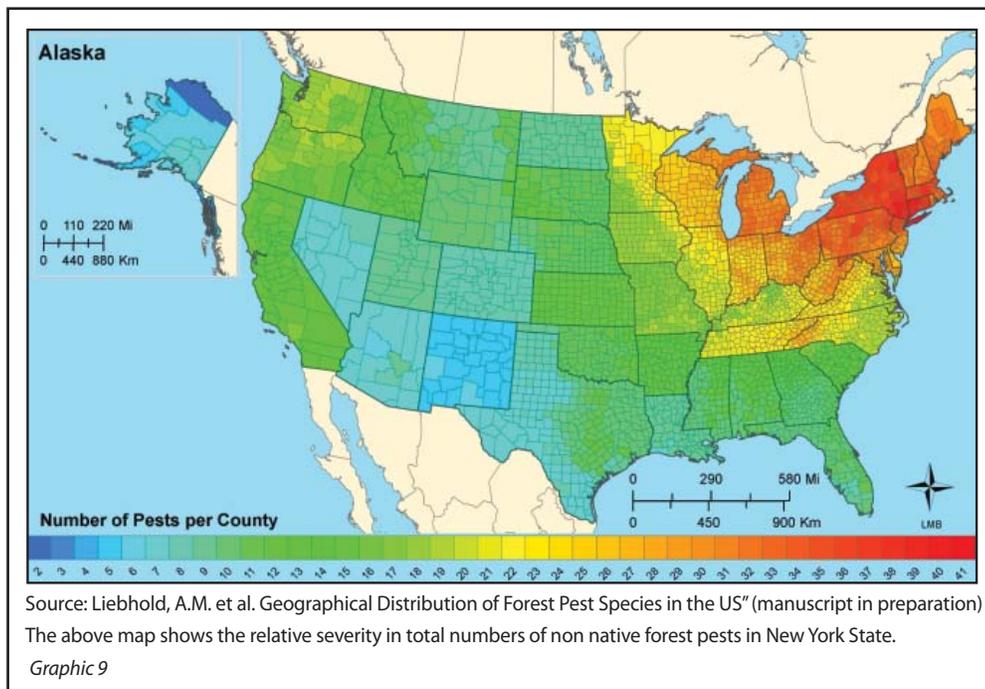
<http://www.dec.ny.gov/animals/7253.html>

Native forest pests also continue to present problems across the state which rise and fall, varying in intensity,

Wildfire

New York has large tracts of diverse forest lands, many of which are the result of historic wildfires. Although these destructive fires do not occur on an annual basis, New York’s fire history shows a cycle of fire occurrence that result in death, loss of property, destruction of forests and hazardous air quality. Over the past 25 years (1985-2009), Ranger Division records indicate that rangers suppressed 5,599 wildfires that burned a total of 63,237 acres. According to Forest Ranger from 1985 through 2009, 96% of wildfires in New York are caused by humans. Debris burning accounts for 32% of all wildfires, arson fires account for 16%, campfires cause 13% and children are responsible for 9%. Smoking, equipment, railroads and miscellaneous causes contribute to the remaining 26% of wildfires. Lightning is responsible for only 4% of New York’s wildfires. Beginning in 2010, New York instituted a new open burning regulation that bans brush burning statewide from March 15 through May 15, when 47% of all fire department-response wildfires occur. Forest Ranger data indicates that this new

statewide ban resulted in 33% fewer wildfires caused by debris burning in 2010 when compared to the previous 10-year average of wildfires caused by debris burning. As wildfires caused by debris burning decline through regulatory enforcement, arson and incendiary fires will likely be the primary cause of wildfires in the future. Addressing this issue will require a greater intensity of enforcement than is used for all other causes combined.



location and impact. Insects such as the eastern tent caterpillar and the forest tent caterpillar cause defoliation which reduces the vigor and resistance of susceptible trees, making them more susceptible to other pests and diseases. Mortality can occur when additional stresses such as disease, other insect outbreaks or drought affect trees in the same year. These pests are problems in both rural and urban forests.

Invasive plants

As with invasive pests and diseases, invasive plants can be detrimental to the health of forests. Barberry, bittersweet, buckthorn, garlic mustard, certain ferns, honeysuckles and swallowworts are just some of the Invasive plants outcompeting native herbaceous and woody plants, and preventing regeneration of our forests.

Deer

White-tailed deer are a significant wildlife resource in New York from both an economic and ecological perspective. Economically, benefits derived from deer include direct and indirect expenditures on wildlife observation and hunting. Losses are primarily associated with agricultural crop damage, damage to forest regeneration, damage to ornamental plantings and deer-related collisions.

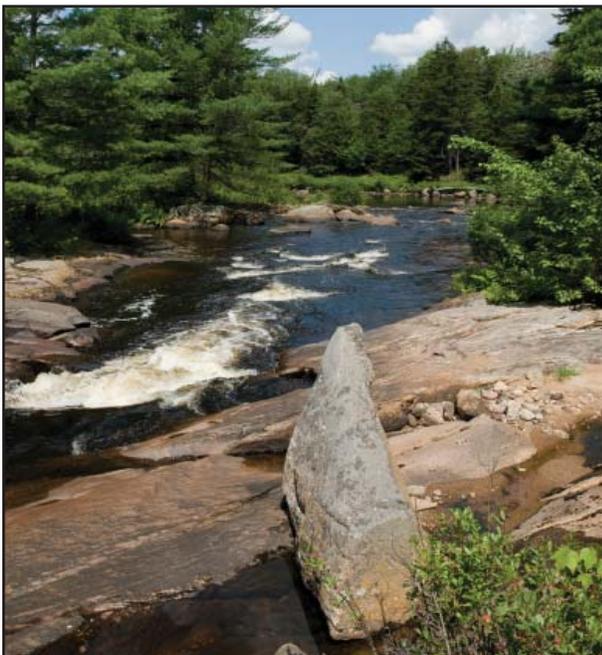


Susan L. Shafer

Ecologically, deer can have a devastating effect on their environment. An overabundance of deer can lead to the local extirpation of certain herbaceous plant species, change future forest composition by favoring certain tree species over others and prevent regeneration, and alter habitat structure and food availability for other wildlife species. Currently, deer over-browsing is preventing regeneration in some areas of the state.

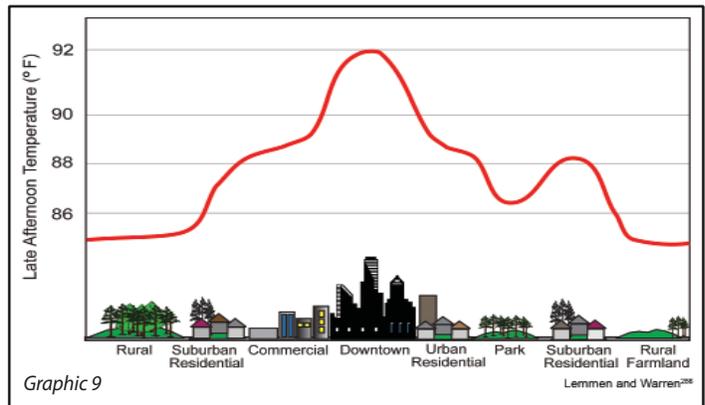
Water and Forests

Scientists and public water supply managers have long known that forests – both managed and unmanaged, provide superior water quality within the watershed in which they are located. New York State created the Adirondack and Catskill Forest Preserve in the 19th century to ensure the state’s water quality and supply. The New York City water supply is the country’s largest unfiltered source, protected by hundreds of thousands of acres of forests. Long Island’s Pine Barrens sit atop a huge aquifer that



provides water for millions of residents. The upstate cities of Rochester, Syracuse and Utica, among others, rely on forests to protect their watersheds.

Healthy, functioning watersheds naturally filter pollutants and moderate water quantity by slowing surface runoff and increasing the infiltration of water into the soil. The result is less flooding and soil erosion, cleaner water downstream for people and wildlife, and greater groundwater reserves.



Urban Heat Island Effect: Temperatures are higher in urban areas than in surrounding areas because roads and buildings retain heat. Increased tree cover can help reduce these temperatures.

Climate Change

Today, New York faces the challenges of a changing climate that could have far greater impacts than the 1930s drought. Forests, including urban forests, provide front-line defenses against the many impacts of climate change. Trees cool the air both by direct shade and by evaporative cooling through their leaves. In urban areas where heat builds up, tree’s cooling mechanism and shade lower our energy costs, otherwise used for air-conditioning. Forests act as sponges during storms; they absorb rainfall and reduce flooding and storm-water discharge. Trees work as filters to clean the air we breathe; they catch and remove airborne particulate matter which causes respiratory irritation and illness. Trees carbon dioxide (a greenhouse gas) and give off oxygen, an element essential for animal life.

Effects of Climate Change: More Extreme Weather Patterns, Warmer Weather & Higher Energy Costs

Carbon-containing gases in the atmosphere, the so-called “greenhouse” gases, are strongly implicated as a source of climate change. Carbon dioxide, methane, and nitrous

oxide have changed the composition of our atmosphere. Carbon dioxide concentration alone has increased since the 18th century and greenhouse gases have shown to warm the earth by allowing sunlight to reach the earth's surface while blocking heat from escaping. Some of the gases also thin the ozone layer that shields the earth from harmful solar radiation.

Flooding

The climate change pattern that seems to be developing in New York has fewer but heavier rains with increased runoff, and more periods of summer drought. The ability of forests and wetlands to soak up water is critical for reducing flooding and for absorbing adequate amounts of groundwater. Forests can also help buffer the impacts of drought by protecting soils from desiccation and erosion. During storms, forests can be important physical buffers, slowing the force of wind by friction and as windbreaks

Drought

In the 1930s, years of drought resulted in the national climate crisis known as the dustbowl - which coincided

with the Great Depression. Even in New York, farms failed from drought, and millions of agricultural acres were abandoned. Some of this land was so poor that literally nothing could grow on it. Occasional drought is a normal, recurrent feature of virtually every climate in the United States. The last severe droughts in New York occurred in the mid-1960s, and again in the early and mid-1980s. Drought, as is too much rain, is an additional stressor on forests. With climate change, it is expected that there will be longer periods of drought. The more stressors forests suffer, the more susceptible they are to diseases, pests and mortality.

Wildlife Migration

Large tracts of unbroken forests and connectivity between these forests are extremely important in the face of a changing climate. In the future as plant and animal populations and biotic communities respond to rising temperatures, species range expansions and contractions are expected. Habitat connectivity is important for making those range adjustments.



The droughts that contributed to the 1930's Dust Bowl affected the Northeastern U.S. as well. Many farms on already marginal agricultural land turned to sand. Above photo taken in St. Lawrence County.



Many of these farms were bought by the State as Reforestation Areas and planted with millions of seedlings. Above photo taken in St. Lawrence County.



Susan L. Shafer

State Reforestation Areas are devoted to reforestation, watershed protection, timber production and public recreation.

Forest Ownership, Management and Conservation

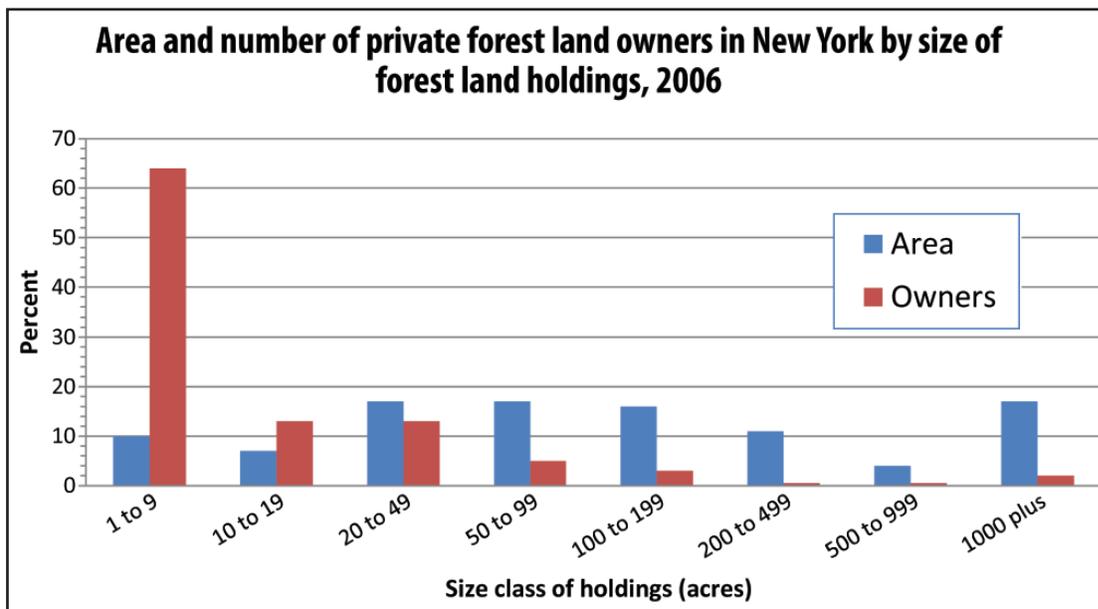
New York's Privately-owned Forests

Seventy-six percent of the state's 18.9 million acres of forest lands are owned by more than 687,000 private landowners. They include the forest industry and non-industrial owners such as hunting clubs, partnerships, non-forest industry corporations and individuals. Over the last two decades, the number of private forest owners has dramatically increased and the average size of forested parcels has continued to shrink.

More than 11.2 million acres of this acreage is considered "family-owned forests". Family forest owners are finding it increasingly difficult to "keep their forests as forests." The reasons for this difficulty are varied. Many are economic, related to the costs of buying, holding and managing forest land. Property values, mortgage interest rates, taxes, costs of management and management services are all important drivers. Local, national and global market factors also affect the returns from direct investments in forest land. Availability and viability of buyers for various forest products, traditional and non-traditional, in addition to consumer trends, market preferences and housing starts all influence wood markets and economic returns.



Regulatory factors can affect what family forest owners can and cannot do with their forests, and the benefits they might receive from them. Societal factors come into play as the attitudes of neighbors and others who do not own forest land weigh in on whether they support or even accept tree cutting within their sight or knowledge. Some factors, ultimately, are personal, related to the age of the forest owner, their personal, financial situation and the interest of their heirs in continuing to own the family forest and keep it as forested open space.



Graphic 9

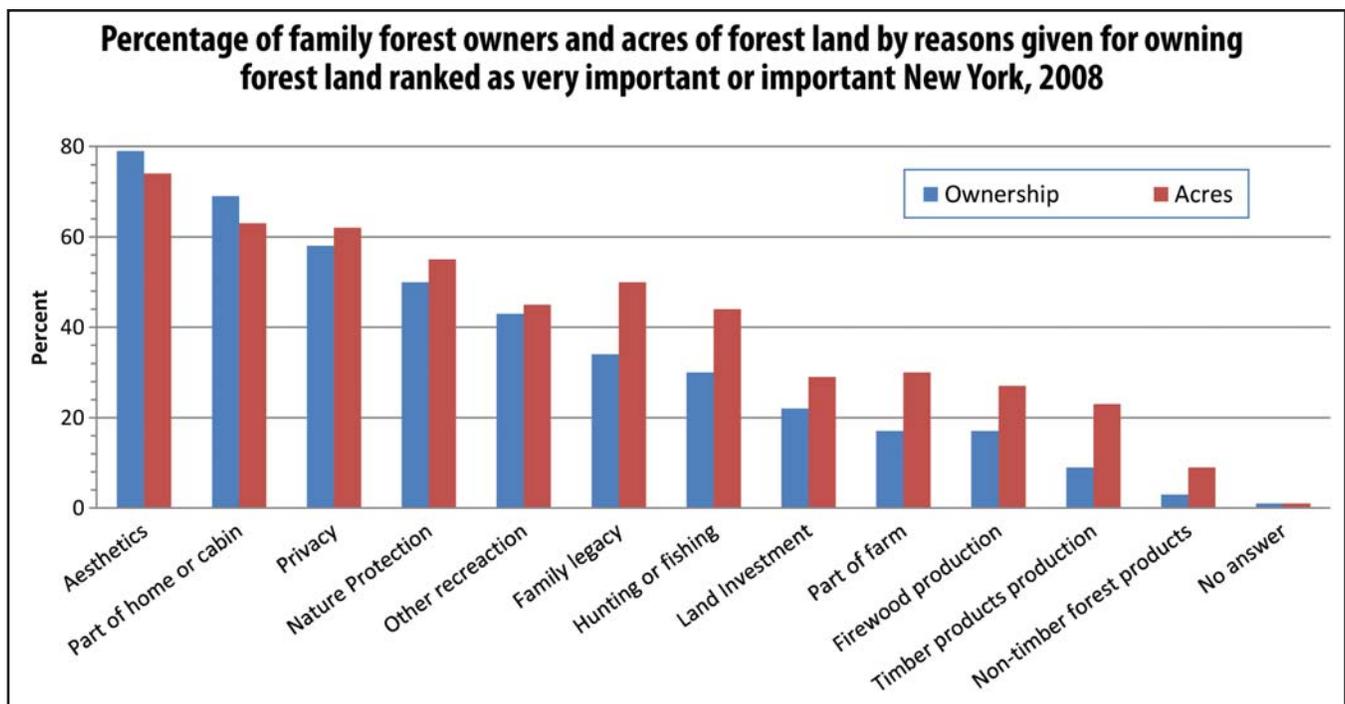
Graphic 11, below, gives us a glimpse at the reasons people own forests. Most owners cited more than one reason for owning forest land. Considering that there are many reasons besides timber production, solutions to reducing forest owners' financial burden must benefit more than just timber products producers. Understanding the motivation of forest land owners is important because it helps us develop approaches and programs to promote conservation, sustainable management and encourage retention of forests as undeveloped open space.

NYS DEC Forest Products Utilization and Marketing Program
<http://www.dec.ny.gov/lands/4963.html>

NYS DEC Private Forest Management Program
<http://www.dec.ny.gov/lands/4972.html>

NYS DEC Forest Products Utilization and Marketing Program
<http://www.dec.ny.gov/lands/4963.html>

NYS DEC Private Forest Management Program
<http://www.dec.ny.gov/lands/4972.html>



Graphic 11

PARCELIZATION AND FRAGMENTATION: Both are a concern.

“Parcelization” occurs when large parcels of land are legally divided up into smaller units. Parcelization results in an increase in the number of owners, but doesn’t necessarily lead to a loss of forests. “Fragmentation” occurs when continuous forest is broken up (“on the ground”) by development of roads, homes, commercial uses and agricultural purposes, where forests are converted to other uses. Forest parcelization and fragmentation both cause several problems which degrade forest health. Invasive plant species, which tend to become established around forest edges, often out-compete native plants and disrupt forest ecosystems. Fragmentation results in less interior forest for plants and animals that require this specific habitat. In addition, parcelization can make managing forests more difficult overall by increasing the number of “decision-makers”, each with different interests, priorities, objectives and needs. New York’s status as a home rule state provides local governments with the majority of control over land use laws. Because of this, local government involvement and landowner participation is pivotal to conservation of forests.

New York's Publicly-owned Forest Lands

New York has a long history of forest and open space conservation, preservation and stewardship. Since the late 1800's, New York State has acquired forest land by a variety of means and under a number of different programs, for a wide spectrum of objectives and purposes.

In our Adirondack and Catskill Parks there are 2.9 million acres of Forest Preserve lands; and nearly 900,000 acres of public recreation rights under conservation easements on private forest lands. There are greater than 786,000 acres of "State Forests" across New York, originally acquired for reforestation and now managed by DEC for open space and watershed protection, timber production and recreation. Roughly 771,000 acres are "green certified", meeting the sustainable forest management standards established by the Forest Stewardship Council and the Sustainable Forestry Initiative. New York also has more than 85 Wildlife Management Areas (WMAs), covering more than 200,000 acres, managed by DEC and designated for hunting, trapping and fishing. They include forests, open fields, streams, ponds, wetlands and scenic vistas.

Equally important, our State lands provide an abundance of outdoor recreational opportunities.

See:

DEC Places to Go

<http://www.dec.ny.gov/62.html>

DEC Recreational Map Collection

<http://www.dec.ny.gov/pubs/4735.html>

DEC State Lands Interactive Mapper

<http://www.dec.ny.gov/outdoor/45478.html>

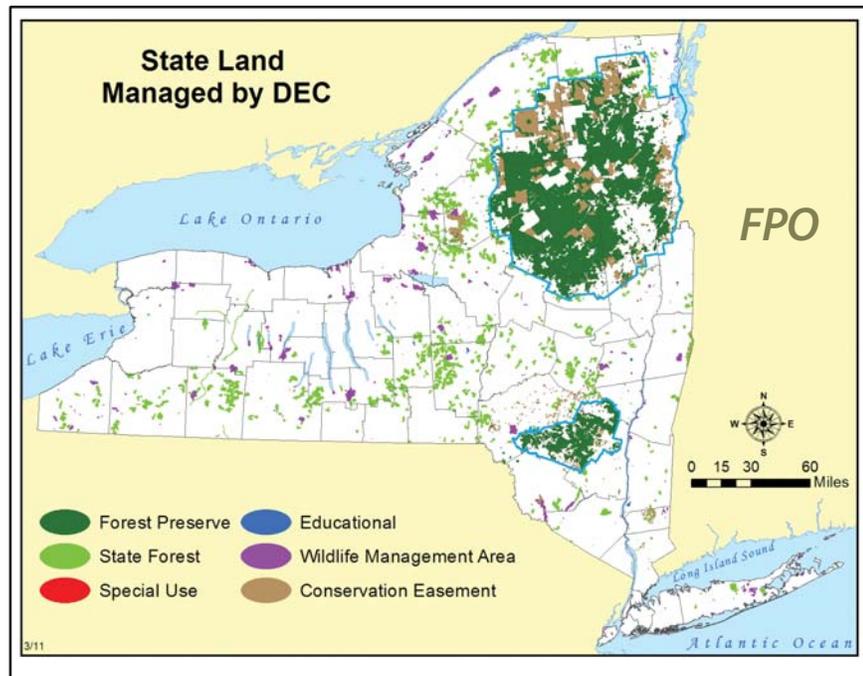
DEC Google Earth and Maps

<http://www.dec.ny.gov/pubs/42978.html>

State Forests

State Forests are located throughout New York State and include forestlands designated as Reforestation Areas, Multiple-Use Areas, Unique Areas and State Nature and Historic Preserves.

State Forests play a unique role in New York's landscape. These lands are important components of New York's open space and contribute to the overall environmental, social and economic well-being of the communities where they



Graphic 11

Lands Managed by DEC

Forest Preserve	2,905,397 acres
State Forests	786,224 acres
Wildlife Management Areas	202,000 acres
Conservation Easements (private land)	889,461 acres
Total Managed	4,783,082 acres

are located and the State as a whole. They are managed, for the broad benefit of the people of the State, by professional foresters, according to recognized sustainable forestry guidelines. They are open for many recreational uses, including hunting, hiking, camping and birdwatching. They provide watershed protection, clean air and wildlife habitat. Often, softwood plantations established on State Forests to reclaim abandoned vacated farm lands provide the only softwood cover needed by certain wildlife species. They also allow for the sustainable use of natural resources, including timber harvesting which is both a tool to maintain healthy and diverse forests and an important contributor to local and state economies.

Most of the State Forests across New York originated from heavy cutting and land clearing to establish farms during European settlement. In the late 1800s, approximately 75% of New York's land area was deforested. Many of the lands cleared for farming proved to be of marginal quality and others failed as a result of poor farming practices depleting the soil.

The 1929 State Reforestation Act, and the 1931 Hewitt Amendment, authorized the Conservation Department (now, the present day DEC) to acquire land outside the Forest Preserve to be used for reforestation. These State Reforestation Areas were to be devoted to reforestation and the establishment and maintenance of forests for watershed protection, the production of timber and for recreation purposes. As a result of their similar past history, most State Forests are even-aged and are often less than 120 years old. The Park and Recreation Land Acquisition Act of 1960, as well as the Environmental Quality Bond Acts of 1972 and 1986, provided funds for the acquisition of additional lands, including inholdings and parcels adjacent to existing State Forests. All of these lands were acquired for the conservation and development of natural resources, including the preservation of scenic areas, watershed protection, forestry and recreation. Classified as Multiple Use Areas or Unique Areas, these lands are also included under the broad category of State Forests.

Forest certification, by recognized authorities, is a way of publicly ensuring that State Forests are sustainably managed. The Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI) have certified roughly 771,000 acres of New York's State Forests, verifying that their management meets their independently-established sustainable forestry guidelines. To retain certification, the

State is committed to continuing and improving our State Forest management practices.

New York's State Forests
<http://www.dec.ny.gov/lands/40672.html>

Adirondack & Catskill Forest Preserve

Of the 4.5 million acres of land managed by the Department, nearly 3 million acres, or 63%, are classified as Forest Preserve. Comprised of 2.6 million acres in the Adirondacks and 291,000 acres within the Catskills, these lands represent a majority of all state-owned property within the Adirondack and Catskill Parks. Protected as "forever wild" by Article XIV of the New York State Constitution, New York's Forest Preserve lands have exceptional scenic, recreational, and ecological value. The Adirondacks and Catskills contain some of the largest blocks of unfragmented forest land in the state. These blocks of contiguous forest are essential for some wildlife species, such as lynx and fisher, and some birds require interior, mature forest.

A substantial benefit of large, unfragmented forests found in the Forest Preserve is that they have a capacity to capture large amounts of atmospheric carbon dioxide, providing front-line defenses against many impacts of climate change. The approximate 3 million acres of the



James Clayton

Adirondack and Catskill Forest Preserve are conservatively estimated to sequester 3 million tons of carbon per year. ("The cost of U.S. forest-based carbon sequestration," Pew Center on Global Climate Change. Stavins and Richards (2005))

Although the State Constitution prevents the same type of management of the Forest Preserve as in State Forests, "management" is still essential. There are social and economic needs and issues. The hundreds of thousands of annual visitors have both positive and negative impacts. "Management" in the Preserve is very much an issue of "people management" and balancing recreation with protecting the resource.

New York's Forest Preserve
<http://www.dec.ny.gov/lands/4960.html>

Working Forest Conservation Easements

Many, but clearly not all, of the desirable and essential benefits, goods and services that forests can provide come from what are called "working forests." Working forests are defined as forests that are capable of producing crops of timber or wood products, which are not withdrawn or precluded from commercial production by law, regulation or policy. In the past decade, New York has acquired approximately 889,000 acres of new working forest easements mostly located in the Adirondack Park. With the trend in the last 20 years of major forest product industries selling off large tracts of their land-holdings to private timber investment companies, sustaining this industry and the substantial values provided by New York's forests has become a primary focus of the state's open space conservation efforts.

The main objectives of the Working Forest Conservation Easement Program are to "keep forests" as forests and "preserve open space" while promoting sustainable forestry and supporting local forest-based businesses and jobs. In addition, some of these easements

offer public forest-related recreational opportunities. To be most effective, expenditures for protection of these landscapes take place on large blocks of land so the resource uses, such as forestry and recreation can continue over the long run without interference from other land uses. The benefits of the easements in return require a corresponding investment of resources for staffing and non-personal resources for administration and management to protect all parties' rights and interests.

NYS DEC's Conservation Easements
<http://www.dec.ny.gov/lands/41156.html>

Urban and Community Forests

The term "urban forestry" still to some sounds contradictory and yet our streets, parks, yards and green-spaces are where most people are exposed to trees and their many benefits. Numerous studies show the mental, physical and educational benefits of trees. Healthy trees and adequate tree cover produce a variety of additional benefits – ecosystem services – that offset the need for costly investment in facilities to manage storm water, mitigate air and water pollution, and insulate against temperature extremes. Collectively, city trees comprise an urban forest that can be thought of as a city's green infrastructure just as a city's roads, sewers, bridges, and water treatment plants comprise a city's gray infrastructure. Cost effective investment in maintaining green infrastructure pays off in reduced spending on gray infrastructure. Better and more livable communities – walkable neighborhoods; distinctive and attractive places with a strong sense of place; mixed land uses; open space and farmland preservation; protection of natural beauty and important environmental areas – rely on healthy green infrastructure.

Urban or community land in New York comprised about 10.8 percent of the state in 2000, an increase from the 10.1 percent estimated in 1990. Statewide tree canopy cover averages 59.1 percent and tree cover in urban or community areas is about 40.4 percent. Statewide, urban or

SUSTAINABLE FOREST MANAGEMENT is about keeping forests healthy, productive and available for future generations, while reaping benefits today. Sustainable forest management requires monitoring forest health and other conditions, maintaining appropriate numbers, kinds and ages of trees, enhancing the growth and vigor of desirable species, and regenerating new trees and forests when the current ones reach maturity or no longer serve landowner needs and objectives. Unfortunately, many forest landowners and harvesters neither use silviculture nor practice sustainable forestry. Instead they apply unsustainable cutting practices such as economic clear-cutting, removing only, and frequently, all the marketable trees, and selective cutting, harvesting only certain selected species or quality of trees.

With few landowners having the equipment or skills needed to conduct a commercial timber harvest on their own and often lacking the technical knowledge, they lack the capability and/or capacity to apply sustainable management practices to achieve desired results. This may lead to inaction, or actions that are not sustainable and may lead to direct or indirect loss of 'working forests' through conversion, degradation or regulation.



Estimated Number of Urban or Community Trees:

253,600,000 trees

Total value of pollution removed per year by Urban and Community trees:

\$ 302,500,000

Local Government's Role

Because local governments have jurisdiction over municipal lands and, through planning and zoning, can influence private land use, they are an essential partner in moving the goals of the FRAS forward. Considering the majority of forest land in New York is privately owned, local zoning is a powerful tool in

community land in New York state has an estimated 253.6 million trees, which store about 48.4 million metric tons of carbon and annually remove about 1.6 million metric tons of carbon and 36,350 metric tons of air pollution.

While many communities in New York are quick to remove hazard trees, very few actually have up-to-date ordinances or regulations in place to require tree re-planting that replace lost trees to development. Similarly, many local governments and the engineering community are unaware of the benefits of using green infrastructure over more traditional and costly gray - concrete sewer infrastructure. The planting and care of community trees represents wise investments in what is perhaps the only part of a community's infrastructure that actually increases in value over time.

NYS DEC's Urban and Community Forestry Program
<http://www.dec.ny.gov/lands/4957.html>

New York's Urban and Community Forests at a glance

New York's Urban and Community Land Area:

3.42 million acres, 10.8 % of State

New York's population living in areas defined as "Urban" (2000 census):

16,600,000, 87.5%

Urban and Community Tree Coverage:

1.32 million acres, 40.4% of Urban and Community land area

protecting forests and forestry.

Municipalities have the ability to protect and manage their community trees. The critical components of a management program include developing a tree ordinance, a tree inventory, management plan, and preparedness planning for natural disasters and invasive insects.

The 2008 Farm Bill authorizes the Forest Service to establish a Community Forest and Open Space Conservation Program through which local governments can apply for grants to acquire forest land for water quality, wildlife habitat, income from sustainable forest management, fuel for municipal buildings, recreation and education. This model of community forests has been used in New England for 400 years.

"Smart Growth" a relatively new movement, is sensible, planned growth that integrates economic development and job creation with community quality-of-life by preserving the built and natural environments. Smart Growth seeks to discourage development on open space and farmland and encourage growth in developed areas with existing infrastructure. In practice, it is a combination of community planning activity, land use regulations, government incentives, and individual actions that can turn investment toward quality of life and better places.
<http://www.dec.ny.gov/lands/45970.html>

A Municipal Official's Guide to Forestry in New York State
http://www.dec.ny.gov/docs/lands_forests_pdf/guidetoforestry.pdf

NYS 2009 Open Space Conservation Plan
<http://www.dec.ny.gov/lands/47990.html>

Action Opportunities for the Future of New York's Forests

New York State's FRAS chose the title, "Keeping New York's Forests as Forests" as the overarching issue facing New York's forests, both those publicly owned and those held by private landowners.

Vision

As a vision of the future, New York must strive to retain its existing forests, enhance them through wise and careful sustainable management, and expand them where feasible in the future.

Threats to the retention and enhancement of forests are many: most private forest landowners need real economic incentives to hold and to enhance their forests against competing land uses that often offer higher short-term economic returns. Publicly held forests are threatened by the realities of today's reduced budgets that affect the

ability of public land managers to provide the long-term management needed to sustain quality forests into the future. Land acquisition budgets for the public purchase of additional forest lands also have been dramatically reduced in the current economic climate.

The following issues, strategies and actions were identified by New York's FRAS working group of forest stakeholders who have helped to form a consensus on how best to move forward in partnership to keep New York's forests as forests. The magnitude of threats facing our state's forests requires a unified response by public agencies, individuals and organizations that care about their future.

Issues

Issue 1 Keeping Forests as Forests - Retaining New York's Forests

Issue 2 Sustaining Working Landscapes

Issue 3 Sustainable Forestry Practices

Issue 4 Sustainable Markets for Sustainable Timber Products

Issue 5 Water Quality and Supply

Issue 6 Biodiversity

Issue 7 Forest Health

Issue 8 Climate Change

Issue 9 Urban Tree Canopy and Green Infrastructure

Issue 10 Connections Between People and the Outdoors



Susan L. Shafer

Prioritizing Actions

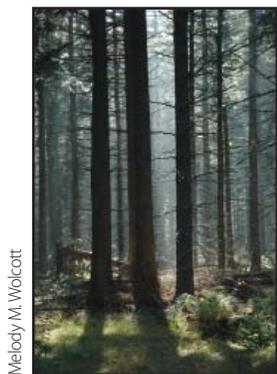
Overlapping Issues and Repeated Actions

The solutions to many issues overlap and so the actions related to those solutions are repeated. This repetition suggests that these are priority actions for stakeholders to address. For instance, the action: “acquiring conservation easements which allow sustainable forestry” appears under Issues 1, 2 and 5. The following abbreviated actions benefit multiple Issues and strategies:

- **Reduce financial burdens on family forest owners by one or more of the following:**

- Investigate/create tax incentive program that combines forests, wildlife and biodiversity;
- adoption of a refundable income tax credit for open space conservation;
- establishment of a new current use assessment program for forest lands;
- creation of an Ecosystem Services/Environmental Benefits payment program;
- reform of current forest & timber assessment practices; and
- encourage the development of third-party “green” forest certification program that will be affordable & accessible by small family forest landowners.

- **Acquire important forest lands in fee title.**
- **Acquire conservation easements that allow sustainable forestry.**
- **Support 3rd party green certification program for small family forest owners.**
- **Develop public outreach efforts with multiple targeted audiences promoting forests and sustainable forestry.**
- **Provide education and technical assistance to local governments in the form of:**
 - promotion, education & technical assistance with local land use planning for forest conservation & biodiversity protection, including use of ‘Smart Growth’ principles;
 - application of local open space protection measures such as community preservation acts/community forest program (2008 Farm Bill); and
 - outreach, education, consultation & technical assistance to local governments regarding the benefits of utilizing best management practices for sustainable forest management activities.
- **Expand and increase use of BMPs associated with forests and forestry.**
- **Mitigate impacts of invasive species.**
- **Work with partners.**



Issue 1: “Keeping Forests as Forests”

Background:

New York State is blessed with more than 18.95 million acres of forest covering 63% of our State. These forests are held in a mix of public and private ownerships, with varying levels of long term conservation protection in place from complete to non-existent. The percentage of forest cover in New York has made a dramatic recovery since late 1800's when less than 25% of the State remained forested following decades of forest clearing for agriculture, development and timber production. Since 1885, the State of New York has invested in acquiring and managing a significant amount of forested land, in all regions of the State, ensuring the permanent retention of those forests as forests. These State Lands are held as State Forests, Wildlife Management Areas and Forest Preserve, each providing their own unique and complementary benefits, values and public “goods”. In recent decades, the State has also invested heavily in the purchase of conservation easements on private forestland, which, to date, has provided permanent protection from land use change to more than 889,000 acres of New York forestlands.

The vast majority of New York's forests are privately-owned, covering 14.4 million acres and representing 76% of New York's forest land. Just over 11 million acres are considered as “family owned” forests. These private forests provide many public benefits including clean air and water, wildlife habitat, carbon sequestration, scenic beauty, raw materials to support jobs and local economies and numerous other tangible and intangible benefits. Yet, family forest owners find it increasingly difficult to keep their forests as forests.

The reasons landowners struggle to keep private forests as forests are varied. Many are economic, related to the costs of buying, holding and managing forest land. Property values, mortgage interest rates, taxes, costs of management and management services are all important drivers. Local, national and global market factors also affect the returns from direct investments in forest lands. Availability and viability of buyers for all manner of “forest products”, traditional and non-traditional and even consumer trends, market preferences and housing starts, all influence wood markets and economic returns.

STRATEGY 1.1

Retain forests across New York State.

Actions

- 1.1.1** Work to reduce burden of real property taxes on private forestland owners, as recommended by the Office of the State Comptroller, by creating new forest & open space retention programs which may include:
- adoption of a refundable income tax credit for open space conservation;

NEW YORK'S FOREST TAX LAW HISTORY

Section 480-a of the Real Property Tax Law (RPTL) was developed to provide forest owners with an incentive to retain and manage forest land. Private owners of qualifying woodlands of 50 acres or more can apply for a partial property tax exemption of up to 80% by committing their forest land to an approved forest management plan.

In 2008, §480-a was amended to provide the landowner with the option of having their forest lands be certified under a sustainable forest certification program recognized by the Department, in lieu of the option of a Department approved forest management plan. This new amendment has not yet been implemented due to technical issues.

- establishment of a new current use assessment program for forest lands;
 - creation of an Ecosystem Services/Environmental Benefits payment program;
 - reform of current forest & timber assessment practices; and
 - encourage the development of third-party “green” forest certification program that will be affordable & accessible by small family forest landowners.
- 1.1.2** Reduce threat of subdivision & land use change on private forestland by:
- expanding State purchases of working forest conservation easements from willing sellers;
 - pursuing public/private, regional or statewide forest easement program partnerships with non-governmental organizations & local governments.
- 1.1.3** Engage local governments in conserving their forests through:
- promotion, education & technical assistance with local land use planning for forest conservation & biodiversity protection, including use of ‘Smart Growth’ principles;
 - application of local open space protection measures such as community preservation acts/community forest program (2008 Farm Bill); and
 - outreach, education, consultation & technical assistance to local governments regarding the benefits of utilizing best management practices for sustainable forest management activities.
- 1.1.4** Permanently protect critical forest resources & values through full fee title public acquisitions of targeted, high-value forestlands.

Issue 2: Sustaining Working Landscapes

Background:

Simply “keeping forests as forests” is not enough, on its own, to meet the needs of present and future generations. Many, but clearly not all, of the desirable and essential benefits, goods and services that forests can provide come from what are called “working forests”. The focus of this issue, identified by New York stakeholders, is the need to maintain the ability of public and private forest owners to

continue to practice active, sustainable management on appropriate forestlands not set aside for special purposes (such as the Forest Preserve, Unique Areas and special protection areas). This ability, in concert with those forests set aside from active management, allows forests to provide the full spectrum of their benefits for present and future generations.

STRATEGY 2.1

Provide legal, economic & social mechanisms to ensure forest owners have the ability to continue to practice active, sustainable forest management.

Actions

- 2.1.1 Promote the use of public & private conservation easements that include specific language allowing active, sustainable forest management.
- 2.1.2 Work to reduce burden of real property taxes on private forestland owners, as recommended by the Office of the State Comptroller, by creating new forest & open space retention programs which may include:

- adoption of a refundable income tax credit for open space conservation;
- establishment of a new current use assessment program for forest lands;
- creation of an Ecosystem Services/Environmental Benefits payment program;
- reform of current forest & timber assessment practices; and
- encouraging the development of third-party “green” forest certification program that will be affordable & accessible by small family forest landowners.

- 2.1.3 Advocate for State & Federal income, capital gains & estate tax reforms that encourage & support sustainable forest management.

- 2.1.4 Continue State’s “Right to Practice Forestry” outreach by providing review & consultation services to local governments for planning ordinances that support sustainable forest management.



Issue 3: Sustainable Forestry Practices

Background:

Forest sustainability is determined by the people and practices that directly act upon the landscape. The choices and decisions that landowners make about their forestland, and those made by foresters, timber harvesters, recreationists, and other users of forests all influence and change the resource. New York has a vast and diverse forest land base, held in a combination of public and private ownerships, and managed to provide a broad array of environmental, social and economic benefits, to meet the needs of present and future generations. The Forest Preserve, Unique Areas and State Parks are set-aside and managed to protect and sustain those special qualities and benefits afforded by natural areas and ecosystems. Legal guidelines and management structures are in place to achieve those goals. State Forests managed by the Department of Environmental Conservation are dual-certified under the Sustainable Forestry Initiative and Forest

Stewardship Council “green certification” and can serve as models of sustainable forest management for other landowners. Urban forests are protected and managed by communities and, as discussed elsewhere, local, State and national programs are in place to promote their sustainable management. Stakeholders identified a combination of outreach, education, technical assistance, financial support, and market-oriented strategies that can increase the practice of sustainable forestry, especially on private forests.



STRATEGY 3.1

Cultivate a long-term Forest Stewardship Ethic.

Actions

- 3.1.1 Conduct outreach efforts to inform & educate private forest landowners, the general public & elected officials about the importance of forests, their conservation, & sustainable forest management.
- 3.1.2 Work with private & public partners, & non-governmental organizations to promote strategic planning for landscape-scale conservation planning & implementation.

STRATEGY 3.2

Develop a systematic agenda with State Extension Forester, local cooperative extension associations, The Nature Conservancy (TNC) & State Environmental Facilities Corporation for maximizing efficiency & cooperative results of private forest landowner outreach efforts.

Actions

- 3.2.1 Encourage development of affordable & accessible third-party sustainable forestry certification programs for the small family forest landowner.

- 3.2.2 Inform small family forest landowners about sustainable forestry certification programs to help them make educated decisions about participating.
- 3.2.3 Continue assisting landowners with developing Forest Stewardship management plans.
- 3.2.5 Develop additional BMPs & guidance to promote biomass harvesting, wildlife habitat protection, forest regeneration, timber crop production & water quality.
- 3.2.6 Develop landowner incentives that will work to increase the use of BMPs.
- 3.2.7 Support “peer-to-peer” private forest landowner networks.
- 3.2.8 Explore emerging areas of sustainable forestry & natural resource science.
- 3.2.9 Provide demonstration sites & long-term research for new practices on State Forest lands.
- 3.2.10 Address forest regeneration challenges.

STRATEGY 3.3

Increase the use of silvicultural Best Management Practices (BMPs).

Actions

- 3.3.1 Utilize State Stewardship Analysis Program (SAP) to target outreach efforts, in order to ensure that high priority opportunities to work with private forest landowners of critical & significant lands are capitalized upon.
- 3.3.2 Implement a BMP monitoring program based on existing USFS protocols.

STRATEGY 3.4

Increase incentives & reduce costs for private forest landowners to promote & implement sustainable forest management activities.

Actions

- 3.4.1 Replace Forest Tax Law program to reward open space conservation and active forest management & promote greater participation in such program. (see 1.1.1)
- 3.4.2 Work with NRCS to expand & increase funding for incentive & cost-sharing programs to promote & support sustainable forest management practices on private forest lands.
- 3.4.3 Streamline administration of cost-sharing & incentive programs for private landowners to make participation more attractive.
- 3.4.4 Advocate for state & federal income, capital gains & estate tax reforms that support sustainable forest management.
- 3.4.5 Work with stakeholders to become actively & quickly engaged in improving forestry incentive programs & targeted funding in the next Federal Farm Bill.

3RD PARTY GREEN CERTIFICATION

Third-party green certification is a way to assure consumers that forest products have come from forest landowners who manage their forests sustainably. Three of the most prevalent and nationally recognized forest certifications are the Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), and the American Tree Farm System (ATFS). Through a third-party verification entity, a forest landowner is required to provide independent auditors access to their lands, staff, and forest management policies and procedures in order to ensure the landowner’s forest practices are meeting the applicable FSC, SFI or ATFS standards. As a result, forest products coming from lands green certified may be marketed with the certification system’s logo, hopefully creating a greater demand for these green-certified products.

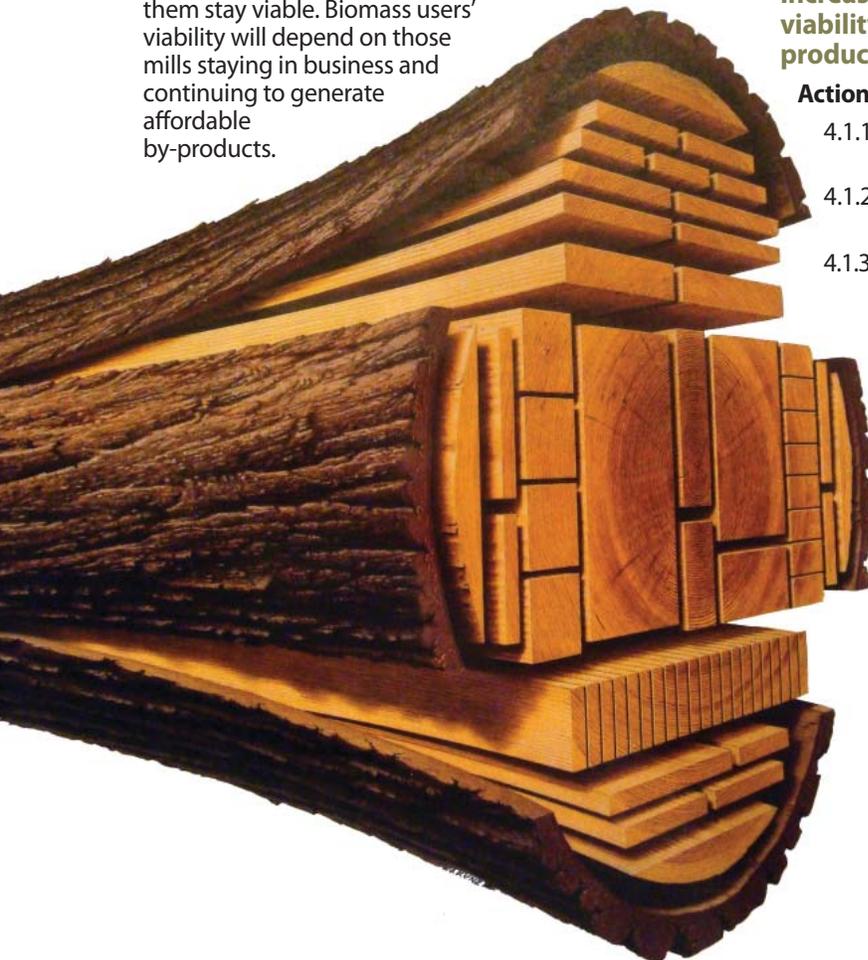
In 2008, the majority of New York’s State Forests (over 786,000 acres) managed by the Department became FSC and SFI green certified. New York’s Working Forest Conservation Easement Program also requires that any easements acquired on private forest lands must be sustainably managed by either a Department approved forest management plan or by a recognized third-party sustainable forestry certification. As such, a majority of New York’s largest working forest ownerships are green certified, which adds up to millions of dollars of forest products harvested annually from sustainable forests. However, with a majority of New York’s forests which are owned by small-family private landowners, the next step is supporting the establishment of a more affordable and accessible third-party verification system for these owners.

Issue 4: Sustainable Markets for Sustainable Timber Products

Background:

Over the last two decades New York, like much of the Northeast, has seen a decline in the number and diversity of markets for harvested timber products. Pulp and paper mills have closed or switched to imported, purchased pulp, and numerous sawmills have closed or consolidated. Loss of these markets has limited management options for forest owners and has reduced their returns. There has also been a loss of secondary wood products manufacturers that buy local lumber and turn it into furniture, cabinetry, flooring, tool handles, and other finished or semi-finished goods. The loss of these secondary wood markets is significant as they are essential in keeping local mills and harvesters in business with the purchasing of their lumber.

Ensuring the availability of numerous and diverse markets for timber products, particularly low grade timber products, is critical to sustaining and improving forest management in New York. Emerging timber products markets such as biomass for energy or chemical production are waiting to be further developed and are geographically dispersed in New York. These new markets will also use and rely on the by-products, e.g., slabs and edgings, or low grade of other wood-processors. They are products that provide a critical revenue stream for sawmills, pulpmills and timber harvesters, which helps them stay viable. Biomass users' viability will depend on those mills staying in business and continuing to generate affordable by-products.



The decline in the timber products markets also has affected the forest products industry's ability to retain, recruit, and train timber harvesters/loggers in sustainable practices. Ultimately, the loss of sustainable timber markets will contribute to the loss of forest land by making forest ownership unprofitable or financially untenable. Thus, by advancing strong, diverse markets that will support forest retention and encourage and facilitate sound, sustainable management, addressing this issue will ultimately help to ensure the sustainability of working forest lands throughout the state.

DEC Forest Products Utilization Program
<http://www.dec.ny.gov/lands/4963.html>

Policy makers in the US agricultural markets have a long history of using subsidies, cost-sharing payments and monetary incentives to conserve and manage croplands and encourage adoption of practices to enhance environmental protection and stewardship. These programs have been quite successful in achieving those objectives with farmers, particularly through programs of the Federal Farm Bills and should be considered for the forest industry market.

STRATEGY 4.1

Increase availability, diversity & economic viability of markets for sustainable forest products & services.

Actions

- 4.1.1 Develop and support activities of newly formed, NYS Wood Products Development Council.
- 4.1.2 Maintain and enhance DEC Forest Utilization Program capabilities.
- 4.1.3 Promote and expand use of locally produced forest products for household & energy uses by focusing technical assistance, favorable policies and incentives.
- 4.1.4 Provide incentives for young workers to enter the forest products industry.
- 4.1.5 Work with public and private partners to promote forest product market retention, expansion and development.
- 4.1.6 Support efforts to develop viable, economical and profitable markets for ecosystem services, including carbon sequestration, wildlife habitat conservation, and water quality protection programs that are accessible to small forest landowners.



- 4.1.7 Provide outreach, education & technical assistance to private forest landowners & entrepreneurs to assist them in developing & participating in non-traditional & non-timber forest products markets.

STRATEGY 4.2

Support retention, recruitment & training of sustainable timber harvesters.

Actions

- 4.2.1 Support & expand timber harvester participation in State Logger Training Program.
- 4.2.2 Work with New York Forest Owners Association, Cornell Cooperative Extension, Empire State Forest Products Association & State Logger Training Inc. to promote use of trained timber harvesters by private forest landowners.
- 4.2.3 Support public & private sector logger safety training programs & other initiatives to improve worker productivity, increase harvesting business profitability, reduce accidents & lower workers compensation costs.
- 4.2.4 Support recruitment & vocational training programs that encourage youth to consider & prepare for careers in the forest industry.



"The best friend on Earth of man is the tree. When we use the tree respectfully and economically, we have one of the greatest resources on the Earth."

Frank Lloyd Wright – American architect

Issue 5: Water Quality and Supply

Background:

New York State has a seeming abundance of clean, high quality water. Forests are critically important to the supply of clean drinking water.

PRIVATE FORESTS – PUBLIC BENEFITS

As of 2005, New York State had 297 public surface water supply systems serving 11,555,950 people. The majority of forests protecting all that drinking water are privately owned.

Protecting natural ecosystems and the services they provide is easier, more efficient and more cost effective than the typical engineered alternative. As an example, the New York City Department of Environmental Protection estimated the cost of installing water filtration alone to be nearly \$7 billion, with over \$300 million in annual operating costs. As a result, New York City has chosen sustain forests and improve the quality of land management in its 'source' watershed - the Catskills and lower Hudson Valley region - in order to sustain high water quality for a substantially lower investment.



Susan L. Shafer

As development frequently leads to the loss of the land's capacity to absorb and hold water, when communities invest in land protection as a way to protect their drinking water, they are investing in the long-term health and quality of life of their citizens – guiding growth away from sensitive water resources, providing new park and recreational opportunities, protecting farmland and natural habitats, and preserving historic landscapes.

According to the United States Environmental Protection Agency, more than 60 percent of U.S. water pollution comes from runoff from lawns, farms, cities, highways, and septic systems. Comprehensive planning and local zoning ordinances are tools often used to manage or direct growth, help maintain open space

or other environmental benefits, or to ensure that infrastructure, such as water supply or sewage capacity are not overburdened. In an era of global climate change, local government will need to use their home rule and land use decision making in creative ways to protect forests, riparian areas and wetlands.

Forests are the first line of defense when protecting water quality. And yet, the public is often unaware of where their water comes from or what the threats to it might be. A better awareness and stewardship ethic will go a long way toward protecting this essential resource.

STRATEGY 5.1

Protect high quality watersheds, shorelines & riparian areas.

Actions

- 5.1.1 Utilize web, articles, press, Project Learning Tree, other public outreach opportunities & partners to promote the importance of forests and forestry's role in water quality protection.
- 5.1.2 Prioritize & protect high quality areas based on watersheds, amount of forest land, population served and threats.
- 5.1.3 Protect, retain and increase forest lands along riparian corridors and shorelines.
- 5.1.4 Coordinate training with communities, partnering with DEC Division of Water & the NY Department of State, SSWCC, NYACD and local SWCDs.
- 5.1.5 Promote conservation easements & acquisition, including community forests to protect watersheds, water quality and control flows.
- 5.1.6 Work towards the authorization of an Ecosystem Services/Environmental Benefits program that can be promoted over time to replace the current FTL, and which may be based on income tax credit rather than on reduction of real property tax liability. (1.1.1)
- 5.1.6a Promote development and implementation of Forest Stewardship Plans in priority watersheds and riparian areas to protect water quality and regulate flows.
- 5.1.8 Support watershed & aquifer protection in the Long Island Central Pine Barrens through wildfire prevention & fuel treatment projects.
- 5.1.9 Continue to promote the state's timber harvesting BMPs to protect water quality in partnership with NYCDEP, ESFPA and others.
- 5.1.10 Review studies & reports of critical ecosystem management projects, especially for public drinking supply watersheds.

Issue 6: Biodiversity

Background:

Biodiversity is often a measure of the health of biological systems. It is the number and variety of plant and animal life in a region. New York State has a rich biological diversity (biodiversity). One of the reasons for this rich diversity is that it is the northern edge of the range for many southern species (both animals and plants) and the southern edge of the range for many northern species.

New York State's Comprehensive Wildlife Conservation Strategy (SCWCS) lists 538 species of Greatest Conservation Need (GCN). Over 50 of these live in specific

forest communities. When vernal pools, streams, rivers, ponds, lakes, wetlands, and other habitat types that rely on fresh water, temperature control, food and other benefits provided by forests are taken into consideration, nearly half of our species of Greatest Conservation Need rely on New York's forests.

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Promoting New York's rich diversity is important because it provides the 'ecological services' on which we depend. Healthy, naturally vegetated areas clean our drinking water, ensure our water supply, provide pollinators for crops,

recycle nutrients and provide fertile soils, and buffer and reduce storm damage. If we conserve biodiversity, we are less likely to suffer disruptions of these essential 'services' as our climate continues to change.

Like water quality, biodiversity requires healthy functioning forests, which harbor a large part of New York's biodiversity. Unwise development and fragmentation threaten forest biodiversity, and lack of funds for forest conservation and management activities are other factors. With global climate change accelerating, preserving the state's intact forests will be critical to protecting the state's biodiversity in the future.

STRATEGY 6.1

Provide guidance & assistance to local governments for incorporating biodiversity principles in planning & zoning decisions.

Actions

- 6.1.1 Maintain connectivity between important identified landscapes.
- 6.1.2 Promote protection & acquisition of buffer lands & corridors around core-protected areas.
- 6.1.3 Fill biodiversity gaps identified in the Strategic Plan for State Forest Management through development & implementation of State Forest Unit Management Plans.
- 6.1.4 Utilize State Nursery seed banks, equipment & expertise for collecting, storing & propagating a wide-range of species & ability to experiment with species for which there is little or no propagation information.
- 6.1.5 Expand GIS database to include local land use decisions based on Hudson River Estuary Program Model.
- 6.1.6 Provide workshops & video conference calls to

introduce & promote local government planners to utilize the state's Natural Heritage GIS database & how it can be utilized to guide planning decisions.



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STRATEGY 6.2

Provide biodiversity & sustainable forest management incentives to private forest landowners.

Actions

- 6.2.1 Expand incentive programs to increase forest diversity focused on the creation & retention of habitats for Species of Greatest Conservation Need.
- 6.2.2 Model state incentive/funding after federal cost share programs such as the Forest Land Enhancement & Environmental Quality Incentives Programs.
- 6.2.3 Investigate comprehensive landowner incentive programs combining wildlife & forest conservation.
- 6.2.4 Revise tax incentive programs to take into consideration ecosystem services. (1.1.1)
- 6.2.5 Support third-party sustainable forestry certification programs that support biodiversity.

- 6.3.2 Manage State-owned Forests in a manner that develops a wider range of forest successional stages.
- 6.3.3 Maintain naturally occurring fire-dependent communities by promoting use of prescribed



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STRATEGY 6.3

Advocate for the fullest range of management tools for public & private lands.

Actions

- 6.3.0 Participate in development of landscape-scale conservation plans that support and promote forest retention and management.
- 6.3.1 Maintain & enhance landscape level biodiversity by managing forests & using timber sales to enhance forest health & species diversity, habitats & structure, enhancing the resiliency of ecological systems & forest sustainability.

burns as appropriate to perpetuate fire dependent communities.

- 6.3.4 Develop new & innovative resources to collect additional data on rare, threatened & endangered species & important natural communities that occur on public & private lands, allowing such data to be available through the State Master Habitat Database.



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Issue 7: Forest Health

The United States Forest Service has identified invasive species as one of the four major threats to the nation's forests and rangelands. Over the last century, diseases have virtually wiped out elm, chestnut and butternut trees from New York's rural and urban forests. The ecological health and function of forests is dependent on a carefully balanced interdependence of species.



As New York, the epicenter of international trade, faces accelerated threats from invasive insects, plants and diseases, the state, local governments and our forestry partners will be responsible for trying to monitor the effects and impacts of each threat over 18.9 million acres of forest land. Prevention of introductions is clearly the best strategy, but often that is beyond our control. Given that we can't stop the introduction of all forest health pests,

our goals is to detect new infestations as early as possible, while they may still be manageable, and work to slow their spread. By doing so, we can limit, or at least delay the environmental and economic impacts to our communities, the forest product industry forest landowners, and homeowners.

STRATEGY 7.1

Fight invasive pests & diseases: Prevent new introductions, detect introductions early, respond rapidly to control and mitigate impact, and slow growth and spread of invasive species populations across New York.

Actions

- 7.1.1 Develop & implement systematic statewide early detection program to minimize amount of time between infestation & detection.
- 7.1.2 Develop rapid & long term response capabilities at the State & local levels to minimize degree of impact.
- 7.1.3 Improve data collection on the status of invasives within the State.
- 7.1.4 Implement Slow Ash Mortality (SLAM) approach to respond to EAB.

STRATEGY 7.2

Address catastrophic natural events.

Actions

- 7.2.1 Develop state and local abilities to quantify natural disaster and extent of impacts on community trees and forests.
- 7.2.2 Increase community preparedness planning for storms and other natural disasters affecting community trees and forests.
- 7.2.3 Develop & distribute BMPs to local decision makers.



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STRATEGY 7.3

Expand public education programs on forest health issues.

Actions

- 7.3.1 Continue to work closely with the PRISMs, Invasive Species Council and the Invasive Species Advisory Committee to increase awareness and engage partners in invasive Species responses.
- 7.3.2 Develop and publish an educational brochure about invasive species BMPs for recreational users.
- 7.3.3 Encourage private landowners to manage their forests to enhance forest health and the diversity of species, habitats and structure in order to enhance the resiliency of ecological systems and forest sustainability.



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- 7.3.4 Increase use of articles for Conservationist Magazine, newsletters, newspaper articles, web, other venues, partners to disseminate information on invasive forest pests.
- 7.3.5 Maximize web resources, providing education on pest issues, effects, & how public citizens can participate to address issues.
- 7.3.6 Train people who already work with the public – use existing communication routes.
- 7.3.7 Support research & technology transfer on climate change & acid rain & their impacts on forest resources, invasive species detection, impacts & management; & ecosystem & habitat conservation and restoration.

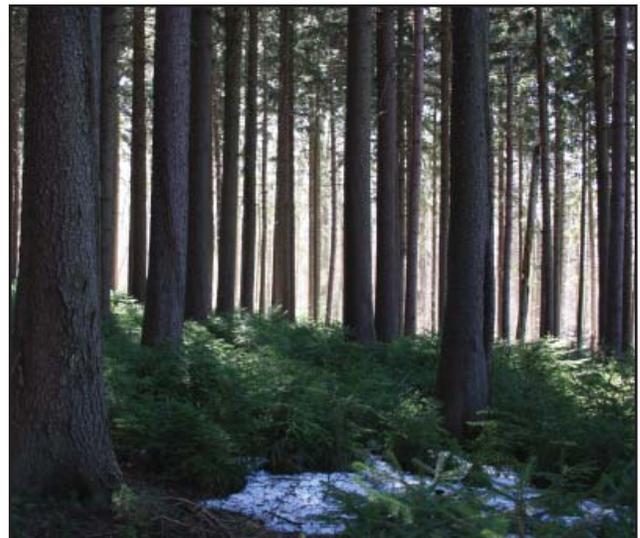
STRATEGY 7.4

Support & improve wildfire management services.

Actions

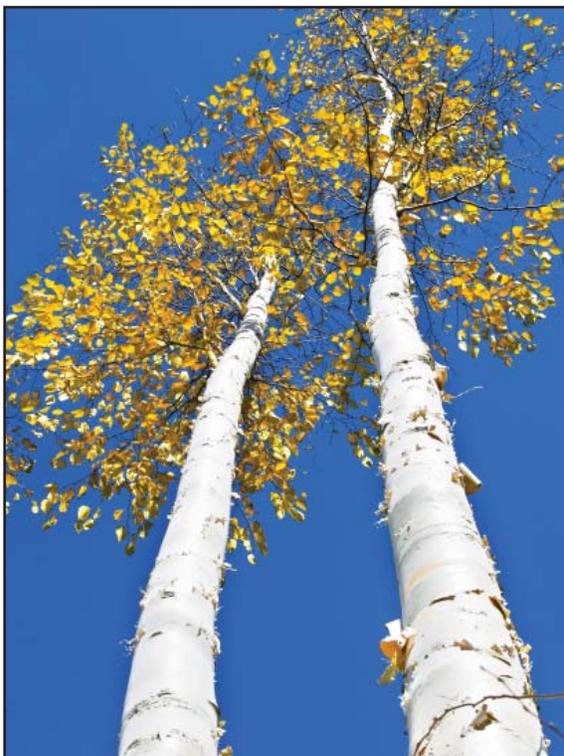
- 7.4.1 Improve local fire departments' ability to effectively contain wildfires within the first operation period without loss of life, injury or excessive property damage.
- 7.4.2 Understand the dynamics of wildfire occurrence as reported by fire departments & forest rangers, & modify management strategies accordingly.
- 7.4.3 Improve capabilities of forest rangers to contain multi-operational wildfires with no injury of loss of life & the least environmental & property damage.
- 7.4.4 Develop active & self sustaining Fire-Wise programs in the 51 communities-at-risk throughout the State with a priority for those 26 towns in the Adirondack Park.

- 7.4.5 Support state & local governments & non-government organizations with management of fire dependent ecosystems.
- 7.4.6 Continue management & support of the Volunteer Firefighters Association program to support wildfire containment by local fire departments.
- 7.4.7 Maintain & improve expertise & capability within DEC Forest Ranger Division in order to support fire departments, state agencies, compact members & federal agencies with prevention & control of wildfires.
- 7.4.8 Improve minimal impact strategies & techniques (MIST) of containing wildfires by developing enhanced hand-crew firefighters & improve aviation capabilities in critical wildfire areas of the State.
- 7.4.9 Support partners with fire management practices to accomplish wildfire protection & ecosystem management on critical sites.
- 7.4.10 Utilize fire occurrence data from fire departments & forest rangers to assess trends in wildfire occurrence.
- 7.4.11 Assess wildfire investigation & burning law enforcement for adequate effectiveness & setting of annual priority goals.
- 7.4.12 Review public & media responses to wildfire prevention & occurrence.



Issue 8: Climate Change

Forests play a huge role in mitigating the effects of climate change. Growing forests naturally store carbon. The age and vigor of forest vegetation affects the rate of carbon sequestration in a forest ecosystem and the overall inventory of stored carbon. Trees are about 50 percent carbon and represent the most dynamic component of



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the forest ecosystem carbon pool. In the Northern United States, hardwoods account for a greater proportion of carbon than softwoods. Changes in carbon inventory are affected by the rate of forest growth, harvest activity, and losses of forest cover due to conversion to other land uses, as well as fire or other natural disturbances. In general, forest activities such as tree planting increase carbon sequestration, while activities such as prescribed burning release carbon into the atmosphere. The carbon inventory in Northern U.S. forests is higher than in forests of any other region of the country. An underlying factor is that forests in the North are not harvested as heavily compared to forests in the South and West.

Additional carbon is stored in wood that is processed or manufactured into products. Increasing carbon stored in urban and rural trees and forests is usually an inexpensive way to mitigate increasing atmospheric greenhouse gases. The carbon stored in forests and forest products mitigates the amount of carbon released into the atmosphere, which may help delay global climate change.

Forests also act as climate buffers, moderating temperature extremes and creating local microclimates. Trees cool the air both by direct shade and by evaporative cooling through their leaves. The Urban Heat Island effect is caused by the predominance of heat-absorbing pavement and dark surfaces which can increase a city's temperatures by several degrees. Trees can reduce this buildup of urban heat and substantially reduce energy demands and related greenhouse gas emissions.

The climate change pattern that seems to be developing in New York has fewer but heavier rains with increased runoff, and more periods of summer drought. The ability of forests to soak up water is critical for reducing flooding and for absorbing adequate amounts of groundwater. Forests can also help buffer the impacts of drought by protecting soils from desiccation and erosion. During storms, forests and wetlands can be important physical buffers, slowing the force of wind by friction and as windbreaks.

Large tracts of unbroken forests and connectivity between these forests is extremely important in the face of a changing climate. In the future as plant and animal populations and biotic communities respond to rising temperatures, species range expansions and contractions are expected. Habitat connectivity is important for making those range adjustments.

STRATEGY 8.1

Recognize the role of forests to mitigate and adapt to climate change.

Actions

- 8.1.1 Promote the use of sustainably produced bio-energy to replace fossil fuel use.
- 8.1.2 Increase practice and recognition of carbon sequestration through forest management.
- 8.1.3 Measure net change of forest carbon stocks on a project/regional basis using FIA data.
- 8.1.4 Promote economic return to landowners from carbon sequestration.
- 8.1.5 Understand trends in climate change and its effects on wildfire occurrence and potential.

FORESTS AND CLIMATE CHANGE

CARBON SEQUESTRATION

Scientists are continuing to study ways of pulling carbon out of the atmosphere and storing it long-term elsewhere in order to slow the increase of carbon dioxide which is trapping heat in the Earth's atmosphere and causing temperatures to rise across the globe. This process is called carbon sequestration, and high-technology methods to achieve this are being explored worldwide.

Trees, like other green plants, use photosynthesis to convert carbon dioxide (CO₂) into sugar, cellulose and other carbon-containing carbohydrates that they use for food and growth. Trees are unique in their ability to lock up large amounts of carbon in their wood, and continue to add carbon as they grow. Although forests release some CO₂ from natural processes such as decay and respiration, a healthy forest typically stores carbon at a much greater rate than it releases it.

The actual rate of carbon sequestration varies with species, age, climate and site, but in general, younger and faster growing forests have higher sequestration rates. Considering that one half of the weight of dried wood is carbon, trees in a forest hold a lot of carbon. When the enormous amount of carbon stored in forest soils is added to the trees' carbon, the inescapable conclusion is that forests are one of our major carbon storage reservoirs working for us today.

Although forests alone can't sequester all of the excess carbon added by burning fossil fuels, they clearly play a significant role. Wisely managed forests can sequester carbon and also provide a sustainable source of fuel and lumber, help clean our air and water, preserve wildlife habitat, provide recreation opportunities and preserve the beauty of trees in their natural setting for generations to come.

Today, much discussion exists about the buying and selling of carbon credits. Forestry has been contemplated as part of national climate legislation. Private forest landowners who agree to maintain their property for forest land use for long periods of time should receive financial incentives to do so, as their forests are sequestering carbon, in addition to providing several other ecosystem services of benefit to thousands, outside their own personal use.



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Issue 9: Urban Tree Canopy and Green Infrastructure

Many people might not associate the trees that grace many of our streets and parks as forests, but the state's urban and community forests are visible and aesthetic resources that provide us with many other beneficial values. 'Green Infrastructure' is a new term for what many natural resource professionals have practiced and promoted for a long time: namely that natural, healthily functioning systems like forests, wetlands, riparian areas and stream and river corridors provide excellent, cost effective ways to address water pollution and erosion - which are now certain to be exacerbated in this era of global climate change.



As an example, the 'Urban Heat Island Effect' is created by the predominance of heat-absorbing pavement and dark surfaces which increases a city's temperatures by several degrees. Trees can reduce this buildup of urban heat and substantially reduce energy demands and related greenhouse gas emissions. Tree canopy cover averages 40.4 % in urban and community areas. Average impervious surface cover in urban and community areas is estimated to be around 18.3 %.

Incorporating trees and the conservation of intact forests and other natural systems, along with management activities that employ the use of trees and shrubs in the design of community non-point source control projects is a critical issue that is generating considerable public attention.

Threats to the expansion of urban and community street trees, parks and small pockets of woods, along with the broader use of green infrastructure include the lack of funding, and lack of technical knowledge among municipal officials and design engineers.

STRATEGY 9.1

Engage & educate communities on the importance of urban forestry & green infrastructure.

Actions

- 9.1.1 Expand assistance programs to increase tree canopy in local communities, stressing health & societal benefits of trees.
- 9.1.2 Replicate & promote the adoption of tree planting ordinances by local governments, modeled after Nassau County's current ordinances.
- 9.1.3 Promote the benefits of trees & native vegetation through Arbor Day & community tree planting events, service foresters, & DEC internet website.
- 9.1.4 Educate planning, zoning boards & encourage greenspace & tree planting in the site plan approval process.
- 9.1.5 Provide GIS access to the public, local government & communities to show where urban forestry & green infrastructure needs exist.
- 9.1.6 Continue partnerships with the State Chapter of International Society of Arboriculture (ISA), State Nursery Landscape Association, and the NYS Urban and Community Forestry Council.



STRATEGY 9.2

Encourage networking of community tree boards.

Actions

- 9.2.1 Form a statewide community tree board committee for information exchange.
- 9.2.2 Provide technical assistance through workshops & other forums.
- 9.2.3 Encourage professionals to volunteer on community tree boards.



STRATEGY 9.3

Develop a statewide database of community tree inventories.

Actions

- 9.3.1 Develop program with the goal of assisting & ensuring every community consistently digitizes street tree inventory data & paper inventories.
- 9.3.2 Develop infrastructure of statewide database & methods to efficiently transfer community data, as well as provide public access to community & state database.
- 9.3.3 Improve accuracy & collection of community tree inventories with tree diversity statistics, population, age, etc.
- 9.3.4 Improve statewide urban forestry inventory by developing program's ability to assess the benefits & needs of an urban forest, taking into consideration tree species, age, size & benefits at maturity.

STRATEGY 9.4

Incorporate green infrastructure into urban communities.

Actions

- 9.4.1 Promote connection between urban forests, green infrastructure & ecosystem services.
- 9.4.2 Promote stormwater management practices using trees natural systems & other green infrastructure measures.
- 9.4.3 Provide incentives & technical assistance to private developers.
- 9.4.4 Utilize State Nursery to research & propagate native species for green infrastructure applications.
- 9.4.5 Support private nurseries & their marketing of native species.
- 9.4.6 Develop a Community Forest Program (2008 Farm Bill) administered by DEC Division of Lands & Forests in partnership with local governments.



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Issue 10: Connections Between People & the Outdoors

The 19th century conservationists recognized the importance of nature as a refuge from the noise and bustle of city life. Today, understanding the environment is critical to our future. But the sad irony is that as the natural environment becomes more important, fewer and fewer people are in contact with it. As a connection to nature fosters a feeling of value, the opposite is true.



New York's public forests provide numerous and varied recreational benefits of invaluable quality, but they come with their own threats and challenges. Federal, state and local governments as stewards of New York's recreational resources are faced with the on-going demand of maintaining and revitalizing aging infrastructure. In addition, New York's forests and recreational resources can no longer be viewed as islands,



but as systems that need to be connected to benefit both people and wildlife.

A relatively new program taking hold throughout the country and in New York is Smart Growth. Smart Growth is sensible, planned growth that integrates economic development with quality-of-life by preserving the built and natural environments. It seeks to discourage development on open space and farmland and encourage growth in developed areas with existing infrastructure. In practice, it is a combination of community planning, land use regulations, government incentives, and individual actions that can turn investment towards enhanced quality of life, increased tourism, improved health, protected ecosystems, and sustainability of our environment.

The 2008 Farm Bill supports the establishment of community forests which could be used for open space conservation, water quality protection, wood products, recreation and education.

One of the tragedies of the modern technological era and sprawling development is our disconnection from nature and others. Virtual pastimes now rival natural, outdoor activities. As more people live in communities spread out over a great area, or live in urban areas without convenient access to parks or forests- woods, fields, streams and ponds - the more foreign and uncomfortable the natural environment feels to them.



STRATEGY 10.1

Support ‘Smart Growth’ and sustainable community development principles.

Actions

- 10.1.1 Encourage local open space protection measures through wider use Community Preservation Acts and the Community Forest Program (2008 Farm Bill).
- 10.1.2 Compile and utilize up-to-date state agency and non-governmental ‘Smart Growth’ guidance publications and materials.
- 10.1.3 Continue providing Adirondack and Catskill ‘Smart Growth’ technical and financial assistance to local governments.

STRATEGY 10.2

Develop public stakeholders for the environment.

Actions

- 10.2.1 Work with partners to develop a support base for forestry in NYS.
- 10.2.2 Enhance classroom education and resources for teachers through Project Learning Tree program.
- 10.2.3 Promote responsible recreation through Leave No Trace and Be Careful with Fire programs.

STRATEGY 10.3

Meet needs for forest-based recreation.

Actions

- 10.3.1 Strengthen liability protection for private landowners.
- 10.3.2 Increase information disbursement on forest recreational opportunities and state programs.
- 10.3.3 Fill habitat gaps through State Forest silvicultural practices.
- 10.3.4 Develop recreation infrastructure, i.e., trails, parking and kiosks.
- 10.3.5 Provide recreation opportunities where people live.
- 10.3.6 Support transit to recreation.
- 10.3.7 Develop a strategic statewide approach to accessible recreation.



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Conclusion

There are so many good reasons to support New York's forests and trees, and those reasons will grow in importance as we grapple with global climate change and the need to protect water quality and all the other benefits associated with forests and trees.

Those of us – in government, in the forest products industry, in environmental and conservation organizations, forest landowners, academics, and of course the public at large – who care about the future of New York's wonderful and diverse forests and trees, can rally around the consensus actions outlined in this summary of the State's Forest Resource and Assessment Strategy.

Whether it is through ignorance, actual hostility, or economic necessity, the reality in today's busy, high tech world is that there are many forces working against the conservation of our forests and sustainable forestry. Working together, we stand a good chance of reducing the ignorance, hostility and economic imbalance currently working against our forests.

Developing a coordinated forestry agenda among all our stakeholders is the goal of this effort, focusing on those actions that we can take together in the next few years to keep New York's forests as forests.



Visit Places To Go

on the DEC website at
www.dec.ny.gov/outdoor/347.html
for the most comprehensive list of
State-owned lands open for
public recreation!



The New York State Tree Nursery

Growing our future

Providing seedlings for conservation purposes for more than a century. New York-grown seedlings propagated from local seed sources are great for reforestation, ecological restoration, improving wildlife habitat, creating visual and wind barriers, living snow fencing, controlling stormwater and erosion and Christmas tree farming. Emerging issues being addressed include:

- Researching plants for potential green infrastructure uses
- Conserving rare, threatened or endangered plant species
- American Chestnut restoration
- Promoting native species for biomass energy uses

Free seedlings from the State Tree Nursery are also available for educational purposes through our School Seedling Program. For more information, visit our website at:
www.dec.ny.gov/animals/7127.html

Project Learning Tree®

Project Learning Tree® is an award winning, multi-disciplinary environmental education program for educators and students in Pre K-grade 12. In 2010, PLT published Environmental Experiences for Early childhood, a curriculum guide and accompanying music CD, to engage children 3 to 6 in outdoor exploration and play. PLT, a program of the American Forest Foundation, is one of the most widely used environmental education programs in the United States and abroad. PLT is correlated with New York State Science and Social Studies Core Curriculum standards. In New York State, PLT is cosponsored by the NYS Department of Environmental Conservation and the Empire State Forestry Foundation.

<http://www.dec.ny.gov/education/1908.htm>



Acreage numbers used in this summary reflect updates since the release of the full Forest Resource Assessment and Strategy in June 2010. They are accurate as of March 2011.

This publication made possible through a grant from the USDA Forest Service. USDA is an equal opportunity provider and employer.

Cover photo by: Susan L. Shafer



INTERNATIONAL YEAR OF FORESTS • 2011

The United Nations declared 2011 the International Year of Forests to raise awareness on sustainable management, conservation and sustainable development of all types of forests. This international effort underscores the importance of forests to people for food, shelter, health and economy. In addition, the United Nations Forum on Forests has established the following four universally agreed upon Global Objectives on Forests:

Global objective 1

Reverse the loss of forest cover worldwide through sustainable forest management, including protection, restoration, afforestation and reforestation, and increase efforts to prevent forest degradation;

Global objective 2

Enhance forest-based economic, social and environmental benefits, including by improving the livelihoods of forest dependent people;

Global objective 3

Increase significantly the area of protected forests worldwide and other areas of sustainably managed forests, as well as the proportion of forest products from sustainably managed forests;

Global objective 4

Reverse the decline in official development assistance for sustainable forest management and mobilize significantly increased, new and additional financial resources from all sources for the implementation of sustainable forest management.

INTERNATIONAL YEAR OF FORESTS • 2011