A Municipal Official's Guide to Forestry In New York State

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A Municipal Official's Guide to Forestry

INTRODUCTION

New York has more forest land than any other northeastern state –
18.5 million acres, covering 62% of the State. Our forests are a tremendous, and sometimes unrecognized, recreational, environmental and economic asset – providing a home to wildlife, scenic beauty, timber for wood products and the source of clean drinking water for millions of New Yorkers.

We too often take our forests for granted, enjoying them as a scenic backdrop to our everyday lives, but not giving much thought to the myriad ways in which they benefit us or how their loss might impact us. This guide is intended to convey the many values forest lands provide, identify threats to forestry and encourage local government officials to actively support and promote multiple forest uses and stewardship of the land.



18.5 million acres of forest land

Important Local Role in Forestry Planning

Local government plays a critical role in forest management because of New York's home rule authority to plan and regulate land uses. State and Federal authorities are moving increasingly in the direction of delegating responsibility for environmental controls to the local level, yet many town comprehensive plans do not identify forest lands as a valuable, renewable natural resource and many zoning ordinances do not list forest uses or timber harvesting as allowed uses in any zone. While these are more likely oversights than intentional omissions, it illustrates just how much we take the forested landscapes in our midst for granted. Such omissions can complicate generally-accepted forest management practices and create hardship for landowners. Relatively few towns actively plan for the future in ways that benefit their forests and some towns unknowingly have plans or processes in place that actually jeopardize long-term forest use.

Farmland protection and the promotion of local farm products have received much justified attention in recent years in response to the continued loss of farmland to other uses. Local governments have become increasingly involved in efforts to protect farmland for farming and help assure that agriculture remains economically viable for the farmer. This same effort is needed for forestry. Objections to generally-accepted harvesting practices are problematic for forest landowners, just as they are for farmers. Local plans and regulations that discourage multiple forest uses can make forest management uneconomical for landowners and force them to seek alternative uses for their property, including land use changes out of forest cover.

Right to Practice Forestry

In all 50 states, including New York, laws exist that safeguard farmers' legal rights to engage in "generallyaccepted farming practices." These "right to farm" laws were passed to shield farmers from those who would object to the sights, sounds, hours and odors of generally-accepted farming operations as well as local governments that sometimes adopt nuisance laws against these practices. These laws recognize that agricultural areas are not just scenic vistas – they are working landscapes that contribute food and fiber to our lives and underpin our rural economies. Forest lands provide clean air, clean water, fish and wildlife habitat, recreational opportunities, wood products we use every day and important contributions to our rural economies. Yet while people are accustomed to seeing crops harvested each year, they are not accustomed to seeing timber harvests and often object when they learn one is planned. Some of these objections are of the "NIMBY" – not in my backyard – variety that one also hears when development is proposed near residents.

Senate Bill 1783 was adopted to address these issues and to place forestry on a par with agriculture in establishing a "Right to Practice Forestry." The bill took effect March 1, 2004 and calls for the following:

- Provides a strong positive statement about the contributions of forestry to the State's economy and environment
- Upon petition by a forest landowner or the Department of Environmental Conservation (DEC), requires towns to send proposed new ordinances that restrict forestry to DEC for review. Towns may also initiate this process voluntarily.
- Provides a 45-day period while DEC reviews the proposal. This can help achieve a dialogue leading to constructive solutions to local problems or issues.
- Offers professional DEC advice to the municipality regarding ways to achieve local objectives without negatively impacting forestry. The town can accept or reject that advice without consequence.
- Requires local land use regulations to "facilitate the practice of forestry."

The new bill also makes timber theft on public and private lands an automatic criminal offense and a Class A misdemeanor, with increased penalties and reparation provisions.

New York Forests Today

A look at New York forests today reveals the prominent role that private forest lands play in the State's forest economy and in creating many environmental and societal benefits for our communities. At the same time, a variety of challenges threaten our forest land base and the sustainable management of our forests as we look to the future.

Snapshot of NY Forests

The forests of New York are diverse in species, use and ownership. About 100 tree species are found in the State's forests, although 12 species make up 80% of the total volume of wood. Red maple is the leading species, with other major species including sugar maple, white ash, beech, oak, cherry, eastern white pine, hemlock and spruce. These are all important species both for wood products and as a contributor to biological diversity and wildlife cover.

Forest use and ownership. Forest lands in New York State are managed for a wide variety of purposes, including income, recreation, wilderness values, wildlife habitat, aesthetics, residential use and watershed protection. Of the 18.5 million acres of forest land, 15.5 million acres or 84% is classified as "timberland" that is largely also available for other forest uses, while the remaining 3 million acres or 16% is unavailable for timber production. Of the classified timberland, 13.2 million acres or 85% is in private, family forest ownership, while just 700,000 acres are in industrial forest ownership and 1.7 million acres belong to various



public entities. Of the 3 million acres unavailable for timber production, virtually all belongs to the State of New York. Much of the industrial and State forest land ownerships are concentrated in and around the Adirondack and Catskill State Parks and Tug Hill area. Timber harvesting occurs in almost every county of the State.

Over one-half million private, family forest landowners hold title to 71% of the forest land base, with an average ownership of less than 50 acres. These landowners have diverse interests and objectives for their forest land, which may include the use of land as a primary residence or for recreation, timber management or other purposes. Some of these forest lands are protected by various land trusts, which either own the land outright or have acquired conservation easements on them. These lands may or may not allow for active forest management, which may include periodic timber harvesting. Major industrial forest landowners in New York manage their land principally for timber growth and harvesting, although they may also make their land available for recreational use.

Of the nearly 4 million acres of forest land belonging to the State, 3 million acres are classified as Forest Preserve or Forever Wild areas that are managed for wilderness values, recreation, watershed protection and aesthetics. No harvesting is allowed on these lands located in the Adirondack and Catskill State Parks. About 720,000 acres classified as State Forests and 165,000 acres of Wildlife Management Areas across the state allow for some timber production. Another 815,000 acres of forest land are in other public ownerships.

Harvesting, mill and timber products facts.

Currently, about 160 million cubic feet of logs for lumber, veneer, pulpwood and other wood products are harvested annually from a small portion of the 15.5 million acres of forest land available for wood production in the State. Approximately 3,000 full- and part-time loggers live and work in the State. Much of today's harvesting is highly mechanized, but even conventional skidder and chainsaw operations are capital-intensive, representing an investment of \$100,000 or more. Harvesting involves tree felling, moving timber to landings for loading and transport to a sawmill, pulpmill or other user. Most timber harvesting in New York is done on a selection basis, which removes certain trees, thins the forest to improve health, vigor and future growth, makes way for natural regeneration and generally maintains a forest cover on the site. "Clearcutting" as a silvicultural system is rarely used in our forest types and conditions, however, it does have some important applications (see section on Land Clearing and Glossary).

> Most timber harvesting in New York is done on a selection basis, which removes certain trees, thins the forest to improve health, vigor and future growth, makes way for natural regeneration and generally maintains a forest cover on the site.

There are approximately 250 sawmills in New York that produce about 480 million board feet of lumber annually. About 75% of the logs milled are hardwood, and 25% softwood. New York is a leading state in the production of hardwood lumber. Sawmills are found in almost every county of New York, primarily in rural areas. Between 40 and 50% of the lumber produced by the State's sawmills is used by in-State wood products manufacturers. Lumber is used for construction, furniture, paper and other wood products.

New York currently has 2 pulp and paper mills that buy logs both in- and out-of-State, down from 42 mills in 1939 and 18 mills in 1963. Numerous other paper mills buy and use pulp only, also from in- and out-of-State. Hardwoods account for about 60% of all pulpwood used by these mills, which supply much of the bond and fine writing paper markets. New York's mills, which by national standards are older and smaller, have been able to survive by being close to markets and concentrating on specialty products. Additional specialty paper processors produce recycled paper for direct consumer use. **Positive trends in forestry.** There have been two major positive trends in forest use in recent years. One very notable trend has been the regrowth of forests on idled farmland. Low farm prices have led farmers in many places to abandon their less-productive fields and pastures and allow them to grow over into woodland. This new forest cover is already generating environmental and societal benefits for communities and has the potential to generate economic benefits to landowners and wood products businesses.

Another important trend has been land preservation. In some parts of New York, particularly the Adirondacks, conservation easements are being placed on forest lands to permanently preserve them for forest use. A conservation easement is a legal instrument that is used to record the retirement of development rights on a property in an agreement with a willing landowner. Forest land easements are usually held by a public entity, such as the State, or by one of many not-forprofit land trusts, including the Open Space Institute, The Nature Conservancy and county land conservancies. Easements may or may not allow for timber harvesting, but often do. Those that allow it generally require that forests be sustainably harvested, thereby conserving "working forests." Maintaining these large blocks of forest land is crucial to prevent habitat fragmentation, thereby promoting/enhancing biodiversity. Additionally, these large blocks will be available for forest use and harvesting for long into the future. This can assure landowners of the opportunity to actively manage their forests and wood products manufacturers of continued access to timber over time, thereby supporting the economic viability of an important component of local and State economies. In 2004, New York State began final negotiations on acquiring conservation easements on 500,000 acres of forest land, half of it from International Paper in the Adirondack Park.



Changes in New York's Forest Land Area

Several specific programs contribute to forest land preservation efforts in the State, most of them regional in nature. First, the 1990 Northern Forest Land Study of New England and New York Forests and the resulting Northern Forest Lands Council, Northern Forest Alliance and Northern Forest Stewardship Act documented forest land conversion threats to the larger region, greatly raised public awareness of the issue and set in motion a chain of events that resulted in major land preservation efforts in the Adirondacks that continue to this day. Second, the federal Forest Legacy Program is an important new purchase and easement acquisition program that, in partnership with State, local and land trust efforts, has contributed to the conservation of significant forest land acreage across New York. Third, New York's Open Space Plan periodically identifies and targets high-priority open space lands, including forests, for acquisition and preservation, using State Environmental Protection Funds. Recommendations for land preservation utilize regional input. Finally, New York City's efforts to protect its upstate watersheds spurred the creation in the early 1990s of the not-for-profit Watershed Agricultural Council and its Conservation Easement program that conserves forest as well as farm lands in the Catskill-Delaware and Croton Watersheds.

250 sawnills in New York produce 480 million board feet of lumber annually

Multiple Benefits of Forestry

Forest lands provide a wide range of environmental, societal and economic benefits to landowners, communities, the State and the nation. While landowners, citizens and town officials normally focus on site-specific land use changes and activities, the incremental, cumulative impacts for better or worse of these changes are critically important. Individual forest properties make up a much larger forest landscape that contributes to the health and well-being of entire regions and ecological communities. Landowners, citizens and town o fficials can and should consider the place and role their forests play in providing the following benefits not just locally but for larger areas and not just for the current generation but for future generations.

Environmental benefits. Next to wetlands, forests foster more groundwater recharge than any other land use, including agriculture. This groundwater can often be tapped as a clean water source. Many municipalities rely on surface water systems that are also best protected and supported by forests. Because of their ability to absorb water, forests additionally reduce stormwater runoff and flooding, providing safety benefits for those living downstream. Reduced stormwater runoff also means less pollution of waterways and resultant health benefits for people, fish and wildlife. Large forested areas can provide critical protection to entire watersheds.

NYC Dept. of Environmental Protection considers the protection and management of forest lands in its upstate watersheds as instrumental in safeguarding water quality for millions of City residents, minimizing or eliminating the need to build an expensive water filtration plant.

Forests generate large quantities of oxygen, absorb CO₂ and other greenhouse gasses and filter air pollution. They also reduce noise pollution by absorbing sound, and create shade, benefitting streams, fish and wildlife. Establishing, maintaining and managing forests are considered critical components of future strategies to reduce greenhouse gas levels and fight global warming, through enhanced carbon sequestration.

Forests are an essential habitat component for most species of wildlife native to New York. A mix of forest types – young, old, large, small, softwood, hardwood, open, closed – is essential to retain and promote biodiversity. Forests help to provide a "critical mass" of prime habitat for many types of wildlife, sometimes including threatened or endangered species. This habitat includes corridors along streams that are used for water access and movement and connecting blocks of land used for food, shelter and reproduction. Forests along streams, rivers and water bodies – "riparian areas" – are also critical to maintaining fish habitats and water quality.

Societal benefits. The demand for outdoor recreation continues to grow. Forests provide abundant opportunities for outdoor activities, including camping, hiking, hunting, fishing, bird-watching, boating, swimming, skiing, ATV and snowmobile use and countless other pursuits.

Forested landscapes have immense visual appeal and are often an important part of a community's character, history and identity. Many people feel that protecting these landscapes is important to the quality of life. Forests can also promote visual values by screening different land uses and hiding undesirable views. Communities should understand that forests are living, changing natural ecosystems that can be conserved, but not frozen in time. Trees will grow, change, fall victim to ice storms, tornadoes, insects or disease, and regenerate. It is unrealistic to view (and try to protect) trees and forests the same way we view historic buildings or man-made artifacts.

Finally, land that is planned and managed for sustainable forest use is less likely to be developed. Forest land can be used as an effective growth buffer or edge to urban areas, helping to define these areas and to reduce sprawl in rural areas.

Economic benefits. The ability of private forest landowners to periodically harvest timber provides an important source of income that can make the difference in landowners' willingness to keep land in forest use.

Forests are working landscapes that further contribute significantly to the local and regional tax base and employment, both directly and indirectly.

The forest products industry is among New York's leading manufacturers, its economic contributions having steadily grown over the last several decades.

These lands demand very little in the way of community services in return for the property taxes their owners pay. Forest uses can be a particularly strong component of rural economies. Harvesting, sawmills, pulp and paper mills and wood products businesses are often located in rural counties where alternative tax base and employment opportunities may be very limited.

Over 65,000 people make a living from working in the woods or in wood products processing, manufacturing and sales around the State. The forest products industry is among New York's leading manufacturers, its economic contributions having steadily grown over the last several decades. More than 53,000 New Yorkers are employed in forest products manufacturing, with a payroll of just under \$2 billion. The industry contributes \$3.7 billion to the State gross product. In 2001 the value of shipments of forest products from New York totaled nearly \$8 billion. More than 7% of all manufacturing jobs in New York are attributable to the forest products industry. New York's sawmills produce an estimated annual market value of \$271 million. These mills employ approximately 2,100 people and many others are employed providing specialized contractual support services. New York's furniture industry employs 17,400 people and generates annual payrolls of \$420 million. New York is one of the top five producers of wood furniture in the country. The State ranks sixth in the nation in the value of shipments of paper. Collectively, the paper industry in the State employs about 34,000 people and generates payrolls of about \$1 billion.

FORESTRY BENEFITS

- groundwater recharge
- water filtration
- flood abatement
- watershed protection
- oxygen production
- greenhouse gas absorbtion
- shade creation
- noise reduciton
- habitat protection
- recreation choices
- scenic views
- growth buffer
- landowner income
- wood & paper products
- local tax base & employment opportunities





Our ability to retain forests and perpetuate their multiple benefits for present and future generations is threatened for a variety of reasons. While some threats are of international scope, many are of local or regional origin and can be addressed close to home.

Competition from other places. In the last few decades, there has been a marked shift in the timber market to the southeastern U.S. and abroad, especially to southeastern Asia. Lower land, labor and capital costs and little regard for environmental degradation in these places has resulted in an uneven playing field and a substantial reduction in timber harvesting in this country, and particularly the northeast.

According to the USDA Forest Service, harvest-togrowth ratios show that New York's forests are producing three times more wood than is being harvested, removed by development or destroyed by insects, disease or blowdown. This means that forest lands in New York could support a higher level of harvesting.

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Fire, insects and disease. Several insect species, especially exotic varieties, threaten forest health in parts of New York. These include the Gypsy Moth (everywhere), Woolly Adelgid (Hudson River Valley), Asian Longhorn Beetle (NY City and Long Island), Pine Shoot Beetle (North and East) and Emerald Ash Borer (Western NY). The introduction of non-native plants has also been a problem in some areas. New York forests have historically not been prone to wildfire, although in any given year, circumstances can arise that create fire risk. Growing residential development in forested areas can increase fire risk. Acid deposition (rain and snow) has weakened forests reduce environmental

and social forest values as well as lower economic benefits for landowners and communities.

Unsustainable harvesting practices. High-grading of timber stands has left weakened growing stock in some areas. This practice involves the selective cutting of mature, prime-specimen trees only, leaving less diverse and lower-quality, even-aged stands behind. Diameter limit cutting is a form of high-grading, in which trees larger than a prescribed diameter are harvested, regardless of quality, size, health or vigor. High-grading threatens the future viability of forests and the environmental, societal and economic benefits they provide.

Conversion and fragmentation of land base.

Fragmentation occurs when forests are broken up by land use changes – parcels are cleared or developed, or forests are separated from other forests. Forest fragmentation is usually preceded by parcelization, when forest land is broken into smaller ownerships, though it may stay in forest use for a time. Forested areas are becoming increasingly popular as sites for retirement and second homes. Properties that are smaller than 25 acres are difficult to manage for timber values, and also lose value for other public purposes, such as recreation access and biological diversity. Yet the average size of privately-owned woodlots is steadily declining. Loss of forest land base jeopardizes local forest-related businesses that cannot afford to transport timber from more distant locations to be processed.

Lack of local planning. New York is a home rule State. Authority for planning and zoning rests with municipal governments. While the State does not require municipalities to adopt either a comprehensive plan or a zoning ordinance, those that adopt zoning and other land use regulations must assure that they are "in accordance" with an adopted comprehensive plan. Many municipalities lack either a comprehensive plan or zoning ordinance or both. Even among municipalities with both, one or the other is often out-of-date or inconsistent with the other. Such documents can discourage multiple forest uses and forest retention if they are unclear, confusing or contradictory. They can provide mixed or unreliable messages to landowners, forest businesses and residents about forest-related expectations and community goals and objectives.

Overly-restrictive local controls. A 1995 survey performed by researchers at the SUNY College of Environmental Science and Forestry identified 123 towns with restrictions on timber harvesting or tree removal, representing about 13% of all towns Statewide. The number of municipalities with such local ordinances is growing. Private forest landowners, timber harvesters, foresters and the wood products industry are becoming concerned about the spread of these local ordinances, which can have an adverse impact on landowners, the forest industry and the local economy. For many private landowners, the opportunity to periodically earn income from their forest land is an important, if not

essential, factor contributing to their ability to sustainably manage their forest and resist pressure to subdivide or develop their land. Ordinances that are so rigorous as to drive landowners to develop their land rather than continue to manage it for forest uses run counter to the public interest at many levels. Furthermore, ordinances that are difficult or time-consuming to administer also raise costs for local governments.

Other local controls that can discourage continued forest uses include inequitable assessment practices that provide lower tax incentives for the active management of forest land than for keeping lands in passive open space use.





Planning and Zoning to Promote Forestry

Planning and zoning are intended to guide future growth and development and to prevent harmful impacts of one land use on another. Most towns want to find the right balance between development and land protection or preservation. Many towns may not realize that there are already a number of government, not-for-profit and industry programs in place intended to promote good forest land steward ship. These include both mandatory standards and voluntary programs.



Forestry-related requirements. Several State and Federal regulations pertain to possible impacts of forest activities, particularly timber harvesting, on water quality and other environmental and safety factors. They include the following:

- The US Army Corps of Engineers may require a permit for stream crossings, with exemptions for certain crossings where Best Management Practices (BMPs) are used.
- The NY DEC requires a permit for stream crossings across certain classified streams and wetlands, requires minimum residual stand densities (basal area) for timber harvesting in wetlands, prohibits forest management roads within 150 feet of designated State Wild, Scenic or Recreation Rivers and requires the top-lopping of cut trees in fire-prone parts of the State. NY DEC also requires a permit for stormwater discharges from land clearing activities that disturb one or more acres of land [NOTE: silvicultural activities, including managed timber harvesting, are specifically exempted from this stormwater permit requirement.]
- **The NY DOT** issues Special Hauling and Divisible Load Permits for log-truckers. State Vehicle and Traffic laws regulate road use, truck weights, allow towns to control seasonal use, protect against road damage by any user and prohibit anyone from leaving mud or debris on roadways.
- State and Federal laws govern the use and disposal of hazardous materials, including petroleum products, fuels and fluids, etc. State laws regulate the use and disposal of registered pesticides.

Voluntary programs. Several State, Federal, university and not-for-profit programs provide training, technical assistance and funding to private forest landowners, forest managers and loggers to promote sustainable forestry management.

NY State Forestry BMP Field Guide Studies have shown that, while timber harvesting is not a major cause of water quality problems, skid trails, haul roads and landings – especially at stream crossings - have the potential to be sources of sedimentation, erosion and siltation of streams and other water bodies. The key to success is proper planning and the use of appropriate or "best" management practices (BMPs). These are simple, often low-cost practices and techniques that can be incorporated into timber harvests. They pay big dividends in keeping water clean, maintaining the productivity of the forest, improving public confidence in timber harvesters and maintaining public support for sustainable forest management.

In 2000, a group of New York forestry and water quality professionals representing State and Federal government agencies, academia and the forest industry produced a Forestry BMP field guide for harvesters, forest managers and landowners. This pocket-sized, illustrated guide recommends ways to ensure that road-building and logging activity are planned and conducted in a manner that minimizes impacts on streams, lakes and wetlands. Topics covered include:

- Planning
- Log decks and landings
- Forest roads
- Skid trails
- Stream crossings
- Post-harvest wrap-up
- Hazardous materials
- Erosion control tools and techniques

These BMPs are consistent with the EPA-approved State Non-point Source Management Plan required under the Clean Water Act. In addition, the guide describes various regulations and permits that loggers and landowners must meet. How a forest "looks" is not always the best guide to whether a property is being well managed from an environmental point of view, but timber harvesting that minimizes the most visually offensive aspects of logging can reduce public perception of site damage. *NY Forest Tax Program* This State program (Real Property Tax Law Section 480-a) supports forest land retention and sustainable management by allowing forest land to be taxed at a lower forest use value rather than its potential development value. Similar to the farm tax program, this tax incentive helps make it affordable for forest land owners to keep their land in forest use. It is also a recognition of the environmental, social and economic benefits that forest land provides to the community as a whole. A 10-year commitment and management plan are required to receive the tax break and a minimum of 50 acres of forest land must be involved. Forest land that is part of a farm ownership that is taxed at use value may also receive reduced tax assessments.

Best Management Practices (BMPs)

Actions that have been determined to be the most effective and practicable means of preventing negative impacts ofsilvicultural activities, such as in reducing erosion and sedimentation of water bodies

NY Logger Training NYLT is a not-for-profit organization dedicated to providing safety, environmental and business training opportunities to timber harvesters in order to promote a higher level of safety and professionalism in the industry. In order to receive Trained Logger certification, an individual must complete three one-day sessions in: standard adult first aid and CPR, environmental concerns and chain saw safety and productivity. As of 2005 there were 300 loggers certified under NYLT. Continuing education is required to maintain certification. Several major forest companies and an increasing number of smaller forest owners require that the loggers they employ be certified through this program.

Cooperative Forest Management Program This DEC program is intended to encourage private landowners to practice sustainable forest use and management on their woodlands. The NY DEC and US Forest Service partner in the "Forest Stewardship Program," which

supports and complements the State's CFM program authority and initiative. Under these programs, a professional forester will visit landowners on request to discuss the landowner's interests and objectives, tour the property and identify forestry management opportunities. Written management plans may be developed that reflect ownership objectives and good forest practices. State service foresters provide advice and guidance on all aspects of sustainable forest management, including regeneration, improvement work, developing recreational access, wildlife habitat improvement and timber harvesting. The intent is to encourage private landowners to become actively engaged in sustainably managing their forest resources. Landowners interested in pursuing additional forestry practices, those who want a Forest Tax Law management plan or those interested in a timber sale are referred to the private sector for those services.

In partnership with the US Forest Service, the New York Forest Owners Association, Cornell University, the State Extension Forester and Congress, the DEC also implements the new Forest Land Enhancement Program (FLEP), authorized as part of the 2000 Farm Bill. This program provides education, technical assistance and financial support to forest owners in developing forest management plans and carrying out approved management practices.

Cooperating Forester Program A broad array of forest management services are available from private sector providers, beyond those available from State or Federal programs. DEC maintains a "Directory of Cooperating Foresters" that landowners may wish to use - a list of private sector qualified, professional foresters who have agreed to participate with the Department and promote sustainable forest management standards.

Cornell's Forestry Extension Program This program provides a variety of educational services and assistance to private, family forest owners that promote steward-ship and sustainable production on forest lands. This includes informational brochures (available online), publications and presentations.

Master Forest Owner Program This is a four-day Cornell University program that provides private, family forest owners with the information and encouragement needed to manage their forest holdings wisely and help promote sustainable forest management to their peers and neighbors. Graduates learn about sawtimber and wildlife management, forest economics and ecology. MFOs continue to receive information updates and attend refresher classes. Over 140 experienced MFO volunteers are available Statewide to provide nontechnical assistance to forest landowners.

Watershed Forest Program This program, which applies to the Catskill-Delaware and Croton Watersheds, is sponsored by the not-for-profit Watershed Agricultural Council through New York City's Department of Environmental Protection. It provides funding and technical assistance for the development of professional forest management plans, aquires conservation easements and funds a variety of forest BMP projects at private landowner request.

Forest Certification Programs Many forest landowners and the forest products industry have actively pursued certification to demonstrate their commitment to "sustainable" forest products. In New York there are several certification systems that are intended to provide proof of a well-managed forest. These independent certification programs have been developed by environmental organizations and forest industries to establish standards for sustainable forestry. These standards include criteria, measures, and management and monitoring systems to ensure that forest lands are being managed in a sustainable manner, that forests are being conserved and that the forest products the public buys come from environmentally-sound sources. Certification programs operating in New York include the Sustainable Forestry Initiative or SFI Program, Forest Stewardship Council or FSC Certification and the American Tree Farm Program. In all, more than 2.2 million acres in New York, including 720,000 acres of State Forest Lands, are currently enrolled in these and other similar programs.

Other Programs Other, area-specific programs provide additional assistance in promotoing sustainable forestry practices, including the NY City forest land easement and aquisition program in its upstate watersheds and the Highlands Stewardship program, which uses US Forest Service Funding to promote the development of forest stewardship plans in the southern Hudson River Valley.

Opportunities for Local Leadership



While the various programs described previously provide technical and other assistance to forest landowners in managing their forests for sustainability, it is at the local level where decisions are made as to whether, where and under what circumstances forest uses and harvesting are actually allowed. This puts local officials in the driver's seat and requires a carefully-considered approach to these issues.

Public participation and education. Often, just raising the level of awareness of forests and sustainable forestry among citizens and town officials can bring a great deal of understanding to a community about the multiple values of forests as working landscapes, including the benefits they provide and threats to forestry. Efforts to convey generally-accepted forest practices and cycles to the public and to compare these with farm operations can also be helpful. Speakers, including educators, professional foresters and others can be invited to participate in informational workshops or forums. Not-for-profit land trusts, conservation organizations, Conservation Advisory Coucils, county Soil and Water Conservation Districts (SWCDs) and county Environmental Management Councils also play an important role. Local newspapers or town newsletters can run a series of guest columns addressing various aspects of forestry and forest uses.

Following an educational effort, the public should be invited to be an active participant in any adoption or updating of a community's comprehensive plan and/or land use regulations that address forest uses. Involving citizens early in the process is important as this translates into long-term support and efforts that are more likely to be implemented.

Coordination and partnerships. There are many opportunities for coordination and partnerships in planning for forest uses. Towns can promote a variety of cooperative resources that are available to help private forest landowners be the best possible stewards of their forest land, including the several voluntary programs described above. Soil and Water Conservation Districts, Resource Conservation and Development Councils (RC&D), Regional Forest Practice Boards and county and regional planning agencies have knowledge of regional forest issues and resources and may be able to provide useful technical assistance or bring neighboring towns together to talk. Working with neighboring towns using a regional approach can provide advantages in protecting a critical mass of forest lands as a longterm working landscape. It can also help assure consistency across municipal boundaries in safeguarding important environmental features and systems that provide regional benefits. Does your town share common forest resources such as streams, lakes, habitat or recreational areas with neighboring towns? Is your reservoir in a different town? Intermunicipal agreements are a tool allowed by State law that can help towns manage shared resources in a mutually-beneficial way. Regional planning approaches often receive preferential consideration for grant assistance from public agencies that recognize the advantages of this approach.

> A comprehensive plan is intended to guide future growth and development as well as identify important natural & cultural resources that should be protected and sustainable managed

Updating the comprehensive plan. Towns that are currently without a comprehensive plan and land use regulations should consider developing and adopting these. All New York communities that use zoning must base that zoning on an adopted comprehensive plan. A comprehensive plan is intended to guide future growth and development as well as identify important natural and cultural resources that should be protected and sustainably managed. A comprehensive plan should have three parts: 1) inventory and analysis, 2) goals and objectives and 3) an action strategy.

Inventory and analysis The inventory is the primary building block of the plan because it identifies unique land capabilities and constraints that can be used to guide development, management and protection efforts. A comprehensive plan should inventory and map the town's forest lands (as well as other land uses) – preferably using Geographic Information System (GIS) technology. GIS mapping allows multiple forest

characteristics to be identified and combined on one or more maps. For instance, a single map could note forest cover and also identify streams, lakes, steep slopes, riparian buffers, sensitive or rare plant or wildlife habitat, wetlands, watershed or groundwater protection areas, recreation facilities and uses and scenic roads or rivers. In addition, forest lands can be mapped by ownership – private, corporate, not-for-profit or public. Some of these GIS layers are available through State, federal or county agencies, while others may need to be created.

The plan text should provide general information on ownership and forest use if the mapping does not. In addition, there should be a discussion of soil productivity and constraints (local SWCDs can provide soils information), landowner management goals, environmental and social benefits, preservation efforts, contribution of the various forest uses to the local economy and any relevant local or regional trends.

Specific environmental, social and economic facts should be presented, including those that impact the larger region. For instance, is there a local or regional mill? If so, is it supplied primarily by local forests? Or, is the forest part of a watershed that uses surface water sources for public drinking water? These and other questions are all relevant to the plan.

The plan should also identify any adverse impacts that have resulted from forest practices to date in the town. Have any practices created problems for the community, adjacent landowners or the environment? If so, what practices and what problems?

Any land fragmentation or development trends in forest areas should be identified. Is forest land being converted to residential or other land uses? Parcelization trends can also be studied. Is most development and parcelization occuring within or close to hamlets, villages and cities? Or is it taking place in rural or fringe forest and farm areas? If the latter, your town may want to consider the use of various growth management tools that will direct development back into and near alreadydeveloped areas and limit development in forest and farm areas.

Next, an analysis should use a future population projection for the town together with information about natural resource capabilities and constraints, existing land uses and infrastructure to make observations about the needs of forestry and forest land values verses development pressures and the needs of the community as a whole. Any existing or potential conflicts should be fleshed out and the plusses and minuses of each side explored.

Goals and objectives Goals and objectives set forth the broad values and specific intentions of the community. They are often drawn from public input as part of a citizen participation process, from community surveys and from the input of the local planning advisory group. Forest goals and objectives should meld public opinion with the factual information derived from the inventory and analysis to guide the plan's final recommendations for action. A sample goal might be "To protect forest land for multiple-use forestry, including timber production, watershed management, fish and wildlife habitat and recreation." Sample objectives intended to follow through with this goal might be "Revise the zoning ordinance to permit timber harvesting in the Rural Resource Zone" or "Assure that forested buffers are maintained along all streams, recreation trails and scenic roads."

An action strategy An action strategy identifies the comprehensive plan's specific recommendations related to forest land and uses. This should include a Future Land Use Map that identifies a "critical mass" of land to include the key, contiguous forest land holdings considered by the community to have the greatest value for single or multiple forest purposes. This map should provide a basis for reexamining zoning and making any needed changes for consistency with the plan map. The action strategy often includes a timeline and identifies responsible parties and resources needed to implement the recommendations of the plan. Actions might include changes to the zoning or subdivision ordinances or permitting process as they relate to multiple uses of forest land, including harvesting and the maintainance of habitat, watershed or scenic values.

New York's State Environmental Quality Reviw Act (SEQRA) provides municipalities the opportunity to anticipate potential adverse environmental impacts of proposed development and land use actions and avoid these through mitigating measures. Towns with significant forestry operations could consider preparing a generic environmental impact statement (GEIS) as part of a comprehensive plan or update that would apply to timber harvests among other actions. A GEIS would include the identification of mitigating measures that would then be implemented through zoning standards such as stream buffers or steep slope requirements. This would eliminate the need for the SEQRA review of individual proposed harvests, thereby streamlining the review process for all parties down the road. The biggest single problem ordinance is the one that simply fails to identify forest management and harvesting as allowed uses.

Land use regulations, including the zoning and subdivision ordinances, are often updated in a parallel process to or right after the adoption of the comprehensive plan. Regulations must be "in accordance" with a comprehensive plan and are required, among other things, to "facilitate the practice of forestry," according to the State's 2003 Right to Practice Forestry law (Town Law Section 263). This means that towns should specifically identify forest uses as allowed and desirable in the town. Frequently, town zones omit any mention of forest uses or harvesting as allowed uses. Towns should also review existing regulations to identify any "forestry unfriendly" language. This may include language that creates obstacles to generallyaccepted forest management. It is important for towns to clearly distinguish between forestry uses or sustainable forestry practices, and development activities that change the underlying land use as well as permanently remove trees and forest cover. Often attempts to regulate development or land clearing end up restricting sustainable forestry.

The biggest single problem ordinance is the one that simply fails to identify forest management and harvesting as allowed uses. Though usually an oversight, such an omission obviously complicates forest management goals for a property. Landowners may be forced to pursue use variances – a cumbersome process designed to evaluate proposed exceptions to the rule rather than facilitate sustainable forestry practices.

As towns evaluate their land use regulations, they should consider whether the comprehensive plan or other sources of information have documented any problems or concerns related to generally-accepted forest practices, including timber harvesting. Where past timber harvests have been responsibly conducted and there is no experience of or concerns about potential adverse environmental impacts, such towns may feel there is no need for further oversight of proposed timber harvests.

However, towns that have experienced problems or have concerns may already have adopted or may be considering adopting local ordinances that call for some level of review of proposed timber harvests. Such towns are often in the more densely-populated parts of the State and interest in local ordinances has often been prompted by complaints related to aesthetic concerns. Other concerns relate to damage to town roads or neighboring property, soil erosion and sedimentation, water quality and noise. State laws already exist to address some of these concerns (see previous section), while others may be addressed at the local level.

While municipalities have a legitimate interest in protecting the environmental and social benefits that standing forests provide – particularly assuring that timber harvesting does not endanger public safety or welfare – these interests need to be balanced together with legitimate landowner rights to realize a reasonable return on their land. Towns with overly-restrictive local ordinances may limit or eliminate management and revenue-generating options for landowners, forcing them to consider alternative uses of their forest land other than keeping it as open space. Local forest-based businesses and jobs – harvesting firms, saw-mills, truckers, manufacturers – may also be adversely impacted, causing economic hardship to local residents. Forest Regulations in Use



There are several ways in which forest management activities and timber harvesting are currently reviewed in New York municipalities. They may be a permitted use – with or without notification or review – or may be allowed through a special use permit or site plan review process. Some towns require town board review, while others require planning or zoning board review and still others allow enforcement officers to make the decision. A few communities involve a consulting professional forester to conduct or assist in the review.

It is useful to review the purpose of permitted uses, special use permits, site plan review and use variances in local zoning. All of these approaches have been used in reviewing proposals for timber harvests, yet some are more appropriate than others. Permitted uses are those that the municipality feels should be allowed in a particular zone under all circumstances, though they may be made subject to specific conditions that would be reviewed as part of a ministerial decision by the community's enforcement officer. Some towns that do not list timber harvesting as a permitted use nevertheless allow it through a temporary permit that may be obtained from the enforcement officer.

Special use permits are for those uses that are felt to be generally appropriate for a particular zone, though perhaps not in all circumstances or as proposed, and are subject to either general or specific conditions to assure compatibility with and/or minimal impacts on nearby uses. Special use permits are normally issued by the planning board or zoning board of appeals as part of a discretionary review process involving a public hearing.

While the special use permit process may allow timber harvests, this is often a burdensome and unpredictable process for landowners because review standards can be vague or unreasonable and the timeline is often drawn-out. The special use permit process is, in fact, designed to review development proposals, and the expertise of reviewing bodies is, accordingly, chiefly in the development area, not in the various facets of forest management.

Site plan review is a process that is used to assure that whatever use is permitted is sited so as to minimize adverse impacts on- and off-site. Occasionally, this process is used to review proposed timber harvests and impose standards that really only apply to development proposals.

Use variances can permit uses that are not listed as allowed in a particular zone. These are issued by the zoning board of appeals as part of a quasi-judicial review process involving a public hearing.

The problem with the use variance process in reviewing proposed timber harvests is that this process exists to handle the unanticipated exception to the rule. The burden of proof of the appropriateness of the use rests on the landowner. Yet timber harvesting is a normal and common forest activity in many rural areas. It should not be more difficult to manage land for forest use than it is to develop. It is far better to allow the use in appropriate zones, and, if there are concerns about the way in which timber harvests are carried out, address these with specific conditions.

Updating Land Use Regulations

Land use regulations can be updated in ways that will support forestry and forest uses and provide for the fair yet meaningful review of timber harvests by incorporating the following standards:

A definition of forest use. A town's zoning should include a definition of forest use in the Definitions section of the ordinance. This definition should identify the many multiple uses to which forest land can be put.

Some towns may want to include a separate definition of timber harvesting, especially if they choose to subject harvesting to a review process. In this case, it would be wise to establish a reasonable threshold below which no review is necessary. Such an exemption is needed for small-scale cutting of trees for firewood or other personal, non-commercial purposes. There should also be exemptions for Christmas tree harvests, removal of hazardous or fallen trees, and clearing of dead or diseased trees. A reasonable threshold would be 10 cords or 10 thousand board feet (MBF) per parcel or contiguous ownership per year. Another possible threshold could be tied to acreage -1, 2 or 5 acres being various numbers used.

Towns that wish to regulate land clearing of trees for building purposes are advised to distinguish land clearing from timber harvesting in their definitions, as the latter is intended as a sustainable forestry practice, whereas the former is not. Because of the differing goals of these practices, if they are to be regulated, each should be addressed in separate ordinance provisions (see discussion that follows).

Definition of forest use:

A wooded area, whether managed or unmanaged, that may include conservation of wildlife habitat, provision of outdoor recreation, production of timber and forest crops, protection of water quality, regulation of water flows, conservation of soil, carbon sequestration and/or protection of aesthetic qualities. Appropriate zoning. The adoption of a forest or farm/forest zone is the ideal way to assure that forest land can be readily managed for multiple forest uses, including harvesting, while potentially conflicting uses such as residential subdivisions are discouraged or not allowed. Forest zones help to prevent the fragmentation and conversion of forest land to other developed uses. Towns are encouraged to place forest lands not needed for development into one or more appropriate forest zones. Use of an average density standard in these zones of one allowed dwelling per 10 or 20 acres of forest land will greatly help to maintain the forestland base. Permitting sawmills will help accommodate existing sawmills as well as allow new ones.

A reasonable review process. Before towns make any decisions as to how to review proposed timber harvests, they should determine what types of problems, if any, they are currently encountering. It may be that a simple notification process that informs the town of the planned harvest and its particulars is all that is needed. For towns that want the opportunity to review proposed timber harvests, perhaps the best approach is to allow them as permitted uses that are subject to specific conditions that assure that the environmental and safety objectives of the town will be met. A local ordinance could call for the submission of a forester-approved harvest plan that meets established local standards. While a local enforcement officer may or may not have the needed expertise to review a proposed harvest plan, make on-site checks during harvesting and assure compliance with local conditions of approval, a town could contract with a professional consulting forester on retainer to do this. This is the approach that is being used by a few towns in the Hudson River Valley. To offset the costs of professional services, a town may impose a fee, which should be clearly stated in a local ordinance. Ideally, the fee should include a base component (perhaps \$100) that applies to all harvests and an additional component that is acreage-related.

Because permitted uses involve ministerial decisionmaking, little discretion can be exercised by the local enforcement officer, who must require that established local standards be met. Where towns desire greater flexibility and discretion in applying local standards, use of the special use permit process would be more appropriate. In such case, a professional forester could provide useful assistance to the decision-making body. "Forests are living, changing natural ecosystems that can be conserved, but not frozen in time... it is unrealistic to view (and try to protect) trees and forests the same way we view historic buildings or man-made artifacts."

Timber harvest plans. The DEC and other professionals recommend that timber harvesting be preceded by a well-thought-out timber harvest plan that protects soil and water resources and fish and wildlife habitat. Towns can require that such a plan be submitted as part of the local review process. A consulting forester can help the town design a form that identifies the elements local officials want to see included in a timber harvest plan. Landowners should be encouraged to contact a forestry professional for assistance in developing the timber harvest plan and conducting an on-the-ground evaluation of the site. A typical timber harvesting plan that is designed to meet landowner objectives as well as a town's review requirements will likely cost the landowner between \$1,000 and \$2,000; for the small landowner, this could be a significant percent of the value of the harvest. Towns should be mindful that their regulations should not impose undue hardship on working forest landowners and operations. Local standards can be appropriate if they address specific concerns and:

• *Are clear and objective* – examples would be: a streamside buffer of 70 feet on up to 20% slopes (from BMP Field Guide), no landings within stream buffer strips and no tops within 25 feet of public roads, streams or public recreational trails.

• *Are even in application* – an example would be a seasonal closure of a road to all trucks over a certain weight, not just logging trucks. Another example would be an hours-of-operation ordinance that applies to all high-noise sources, not just timber harvesting. Alternatively, in rural areas with little nearby residential development, there may be no reason for limiting hours of operation at all.

• *Impose reasonable and justified standards* – an example would be a local ministerial review process that requests reasonable information from the applicant, requires that reasonable forest-related standards and BMPs be

met that allow some flexibility and responsiveness to particular site characteristics, allows a reasonable window of time to conduct the cut, imposes a specific and reasonable fee, requires limited bonding - if any and does not require that the town be named as coinsured. Harvesting standards should be based on specific problems the town has identified as being of concern. Requirements of standard development proposals that are not applicable to forest activities should not be imposed. Any harvesting limits should assure that the majority of a proposed property can be harvested in some manner. While buffer strips can provide important protection to streams, steep slopes, recreation trails and scenic roads, selection harvests can still be a compatible use within these buffers in many cases. Harvesting permits should be valid for a minimum of one year, with at least one permitted extension allowed.

• *Provide for streamlined review* – an example would be a review by a town-contracted professional forester and town decision within 30 days of the submittal of an application. An efficient review timeline minimizes costs and uncertainties for the landowner, thus encouraging the continued forest use of the property.

• *Require best management practices to protect environmental values* – there are many professional sources of BMPs; those used by applicants, loggers and towns should all be backed by a professional source, such as the BMP Field Guide. Towns may require either that timber harvest plans meet generalized BMPs to be specified and implemented under the supervision of privately-contracted professional foresters, or they may specify BMPs by listing them in local ordinances and retaining a publicly-contracted professional forester to review timber harvest plans and assure their implementation.

The types of best management practices that may reasonably be required as part of timber harvest plans include:

- Required buffer strips along streams, steep slopes, scenic byways, recreational trails or where threatened or endangered species exist
- Other erosion and sedimentation control techniques
- Standards for the construction of forest roads, skid trails and stream crossings
- Standards for the construction of log decks and landings
- Standards related to clean-up and site restoration

Towns can greatly assist local landowners, loggers and wood products businesses by working together to use common approaches to forest practices within regions. Multiple and differing local ordinances can be particularly frustrating for operators, who must familiarize themselves with standards that differ among municipalities, and adjust their operations accordingly if they are to do business there. Towns can provide further assistance by promoting fair and standardized forestland assessment practices within regions.

There are several specific types of ordinance provisions that raise particular concerns because they add effort, time and cost to proposed timber harvests and are difficult and expensive for towns to implement. These involve standards that:

- Are vague and discretionary
- Are uneven in application
- *Ask for information that is not readily available*
- Impose overly-specific standards
- Require SEQRA review
- Are unduly burdensome
- Unreasonably slow the local review process
- Prohibit most or all harvesting
- Are counter-productive

For examples of problem ordinance language that should be avoided, see the Appendix.

The DEC and other professionals recommend that timber harvesting be preceded by a well-thought-out harvest plan that protects soil and water resources and fish

and wildlife habitat.

Land Clearing of Trees



Some towns may wish to adopt review standards for the land clearing of trees for development (frequently mistakenly called "clearcutting" – a silvicultural practice). Because the objective of such a review differs from that of sustainable forestry management, any standards should be separate from a planned timber harvesting review process. In fact, suburban towns are well advised to adopt land clearing standards to help them demonstrate compliance with the Phase II Stormwater requirements (Section 402) of the Clean Water Act. This Act requires permits for stormwater discharges from land clearing that disturbs one or more acres.

Very often, land clearing of trees occurs as part of a subdivision or land development proposal or, sometimes, in advance of one. Subdivision and land development standards can mandate or provide incentives for the retention of specified minimum-diameter trees on site (excepting the area including the footprint of the building, the driveway and lands needed for access by building equipment) or, alternatively, the replacement of any such trees that are removed by new trees of a specified minimum diameter. Retaining or replacing on-site trees can minimize the need for structural stormwater solutions to runoff created by new impervious surfaces.

The difficulty is often in devising and enforcing land clearing standards that can be used when there is not yet a proposed subdivision or land development proposal. Landowners may indicate that they will be conducting a generally-accepted timber harvest and end up land clearing the site in what is clearly not sustainable forestry practice. For this reason, it is understandable that some towns may desire to prohibit land clearing, particularly in growing areas where on-site tree retention on development sites can provide important stormwater and water-quality benefits that will help towns meet required federal Clean Water standards. It is precisely when land is planned for development, and not necessarily as part of sustainable forestry practice, that the removal of tree cover is most problematic for the environment.

> Suburban towns are well advised to adopt land clearing standards to help them demonstrate compliance with the Phase II Stormwater requirements of the Clean Water Act.

For this reason, it may be reasonable for a local review process to be designed to identify applicants whose actual intent is land clearing rather than sustainable forest practice. Specific requested information in a harvesting application could permit an experienced forester on retainer by a town to flag such applicants. While such applicants could not be required to retain or replace specific-diameter trees as under a town's subdivision and land development standards, they could be required to implement a selection harvest rather than land clear their property, thereby minimizing any environmental damage should the property later be developed. For such local standards to meet with success, they must be thoroughly publicized and accompanied by educational efforts to familiarize landowners with the new requirements. Many landowners are not aware that development lots with mature trees and other vegetation sell at a premium and may minimize the need for and cost of providing structural stormwater controls on-site.

Forestry for Tomorrow

The continued health and vitality of our forest lands into the future depends as much on the day-to-day land use decisions that local government officials make as it does on private landowner objectives for their forest land. With a little effort, cooperation and mutual understanding, these decisions and objectives can and should be mutually supportive, pro moting a full spectrum of sustainable forest uses. Generally-accepted, responsible forest practices support the compatible twin goals of community good and private benefit. Just as local government should endorse the sound stewardship of our forest lands so, too, should it ensure that its decisions do not create undue hardships for the stewards of that land.

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Appendix

Sample Problem Ordinance Language

The following are examples of existing adopted and proposed local forest harvesting ordinances in New York that may pose problems for generally-accepted sustainable forest management. Problem standards include those that:

• Are vague and discretionary – such standards are fundamentally unfair because they are unpredictable in their application and result in subjective local reviews. These may be found in towns that require that allowed uses be "compatible with the character of the neighborhood." A specific example is a town that asks that harvested areas be restored "in accord with" the town's long range plans, without describing more specifically what is meant. Another example is a town that proposes multiple, open-ended and unspecified fees and reviews.

• Are uneven in application – standards that apply to one category of land use and not to others without clear and justifiable reasons are also unfair. Perhaps the most frequent example is towns that impose road and other property damage liability on logging trucks and not on other heavy road-using vehicles. This is a particularly vexing issue from the logger's perspective. Log trucks are not the only heavy vehicles that may cause damage to roads. Milk trucks, oil and propane tankers, school buses, cement mixers, gravel trucks, snowplows and other heavy vehicles also use roads, often much more regularly than logging trucks. Current law gives towns ample authority to protect town roads from damage by any source, without discrimination, if adequately enforced. Section 302 of Miscellaneous Provisions of the State Highway Law reads:

"Whoever shall injure any highway or bridge maintained at the public expense, by obstructing or diverting any creek, watercourse or sluice, or by dragging logs or timber on its surface, or by drawing or propelling over the same a load of such weight as to injure or destroy the culverts or bridges along the same, or of such weight that will destroy, break or injure the surface to any improved state highway, county road, or town highway or by any other act,

or shall injure, deface or destroy any milestone or guide-post erected on any highway, shall for every such offense forfeit treble damages."

Another area in which there is often uneven application of local laws is in the permitted hours of operation of timber harvests. Many local ordinances restrict harvesting to between 7am and 7pm on weekdays. The concern here is, of course, noise. Yet many timber cuts are in remote areas where noise is not a problem. Also, some towns with limits on timber harvest hours of operation have no such limits that apply to other high noiseproducing uses, such as building construction, use of outdoor power tools and machines or use of all-terrain vehicles. It is unfair to impose hours of operation on one class of high-noise sources in a community and not others.

Ask for information that is not readily

available – some information requested of applicants is simply not known or is problematic to get. This includes requests for the identity of the logger on the initial application, when this is usually not known until bids go out after approval of the requested cut. Also often requested is the number of trees or board feet intended to be cut; this can be estimated but not precisely known.

• Impose overly-specific standards – these are standards that, though well-intentioned, may be inappropriate to a particular site. Many towns call for a variety of specific harvesting standards or methods that are based on published best management practices for forestry. While these standards are good and usually make sense, overly-specific standards may eliminate important flexibility to respond to particular site conditions. One example would be a requirement for waterbars every 200 feet on slopes less than 10%, when ground conditions or other available water diversion/erosion control devises might make other approaches just as effective. Another example would be a requirement for topographic maps or elevation diagrams with one- or two-foot intervals. While this may typically be required for development reviews, such detail is not used nor is it available or useful for forest management or harvesting plans.



• **Require SEQRA review** – while there may be circumstances in which very large proposed cuts or cuts on highly-sensitive lands may warrant SEQRA review, in most cases this should not be necessary. Where towns have an up-to-date comprehensive plan and zoning, the environmental issues connected to timber harvesting and other land uses should already have been addressed and desired mitigation measures incorporated into zoning and other standards, making SEQR a duplicative process. The simple fact that trees have been cut does not constitute "site disturbance" or "physically altering the site," which would trigger a SEQRA Type 1 review. SEQR is primarily intended as a tool to address environmental issues surrounding construction, subdivisions, developments and land use changes.

• Are unduly burdensome – these are provisions that impose an unreasonable financial cost or other requirement on the applicant. An example is a town that requires that harvesting plans specify the location of each tree to be cut through a global positioning system. Another example is a town that calls for pedestrian access, a fire prevention plan and a landscaping plan for forest harvests as part of a site plan review process. The same town calls for stormwater management based on engineering calculations. A fairly common and burdensome requirement in some towns is a provision that limits harvesting to too-short a time frame - often 90 or 180 days. Depending on when such a permit is issued, it could force loggers to work in inclement and unsafe weather conditions. Some towns have permitting fees and enforce penalties for violations, while in addition requiring the posting of large bonds and insurance with the town as co-insured.

These several approaches can be duplicative, unnecessary and sometimes unreasonable. In some cases, high bond requirements exceed the value of the timber to be cut. Naming the town as co-insured is unnecessary and creates extra paperwork. Such provisions impose hardship on smaller landowners in particular and may have a chilling effect on continued management of properties for forest use.

• Unreasonably slow local review process -

sometimes towns impose a long, complex and involved review process on applicants, at times seemingly in an effort to discourage the applicant from following through. This might include use of the special use permit, site plan review or other discretionary permitting process together with the SEQR process, a request for extensive and detailed site information and exacting harvesting requirements. An example is a town that proposed a 180-day review period for evaluating all timber harvests.

• Prohibit most or all harvesting – while there may be legitimate reasons to limit harvesting in environmentally-sensitive areas, an outright prohibition of all harvesting or provisions that have the effect of prohibiting most or all harvesting on a parcel would most likely be illegal and further disqualify landowners from participating in the State's forest tax program. For example, a local ordinance that imposes a 100-foot buffer from property lines within which no harvesting may take place could effectively prohibit any harvesting on smaller properties and significantly limit it on other properties. Buffers along property lines do not usually protect environmental values unless they buffer a public recreational trail or unless the land involved slopes down to adjacent ownerships that will be made more vulnerable to flooding. Otherwise, if adjoining landowners desire buffers from forest properties that are managed for timber use, they should provide them on their own land. This would also be true in farming areas and is a persuasive reason why residential uses in forest and farm areas should be discouraged or at a minimum should include substantial buffers from property lines.

• Are counter-productive. These include standards that are intended to promote good land and water stewardship but may not necessarily have the intended effect. For instance, some towns require that all debris be removed from the site after logging. However, leaving tree tops will promote decomposition and conserve soil.

Glossary

Best Management Practices (BMPs) – Actions determined to be the most effective and practicable means of preventing negative impacts of forest harvesting, including– reducing erosion and sedimentation of water bodies (streams, ponds, lakes, rivers, etc.) from logging activities.

Board foot – A unit of measure one foot long, one foot wide and one inch thick, usually in reference to sawlog material.

Buffer strip – Usually, vegetation of a specified width left along a stream, lake or wetland to protect water quality by filtering sediment and pollutants, preventing erosion and cooling water temperatures. Buffer strips can also provide visual screening, physical separation of activities and wildlife habitat and travel corridors.

Carbon sequestration – The storage of carbon. Forests are well-known carbon sinks, absorbing carbon dioxide and releasing oxygen into the atmosphere, thereby helping to regulate global warming.

Clearcut – A silvicultural practice in which most or all trees are harvested from a site. Clearcuts are generally used for regenerating specific species of trees, but may also be used to improve wildlife habitat, salvage storm- or insect-damaged stands or convert poor-quality forest stands to stands with higher-quality stock.

Conservation easement – A voluntary legal agreement, either permanent or temporary, to limit the type and amount of development on property, as a means to protect natural resources. Restrictions and, sometimes, prescribed management practices are written into a deed, which is recorded in public land records.

Cord – A volume of wood measuring four (4) feet by four (4) feet by eight (8) feet and totaling 128 cubic feet.

Critical mass – A concept that refers to size and conveys the need to designate large areas of land for forestry (or farming or wildlife habitat) in order to best promote the long-term continued viability of this use.

Diameter-limit harvest – A timber harvesting treatment (or timber sales contract specification) in which all trees over a specified diameter may be cut.

Ecosystem (forest) – All the plants, animals and chemical and physical processes that interact to sustain the forest in complex ways.

Enforcement officer – A zoning officer, code enforcement officer, building inspector or other local official whose responsibility it is to review applications for and issue ministerial permits.

Even-aged stand – A group of trees that do not differ in age by more than 10 to 20 years, or 20 percent of the rotation age. (Most stands of trees in New York are actually even-aged.)

Forest Certification – A formal method of documenting the use of sustainable, scientifically-based forestry practices. Certification programs often provide independent third-party assurance that a forestry operation meets specific standards. These are market-based systems in which forest landowners and wood-using businesses participate voluntarily.

Forest management – The application of sound forestry principles and practices to woodlands operations to maintain the productivity of the forest.

Forest roads – Haul roads that are constructed for higher-volume transport of logs from landings to public highways.

Forest stewardship plan/Management plan – A document designed to guide and direct the sustainable management of a forest property to meet the landowner's goals and objectives. Usually prepared by natural resource professionals (qualified foresters), plans consist of goals, inventory data and prescribed activities designed to meet ownership objectives.

Forest use – A wooded area, whether managed or unmanaged, that may include conservation of wildlife habitat, provision of outdoor recreation, production of timber and forest crops, protection of water quality, regulation of water flows, conservation of soil, carbon sequestration and/or protection of aesthetic qualities.

Generally-accepted forestry practices – Like generally-accepted farming practices, these are normal and common silvicultural techniques used to manage forests.

Groundwater recharge - The percolation of water into the ground. Forests absorb large quantities of precipitation.

Hardwood – Wood from broadleaved or deciduous trees, including maple, birch, ash, oak, aspen, cherry, beech and others.

High-grading – The selective removal of the largest or most economically viable trees without improvements in the remaining forest. High-grading can include diameter limit cutting, in which trees larger than a prescribed diameter are harvested, regardless of quality, size, health or vigor.

Land clearing – The clearing of trees and other vegetation from property in preparation for development.

Logger – The person who will be performing the actual work required to cut and remove the timber from the work site.

Log decks and landings – A place where logs are assembled for loading and transport to a mill.

MBF – One thousand board feet.

Multiple use – The use of forest lands for a variety of purposes, including harvesting, wildlife management, recreation and watershed protection.

Professional forester – An individual who has a Bachelor's or higher degree in forest management or an associated forestry discipline from a Society of American Foresters accredited or candidate institution. Additional professional credentialing is afforded through the Society of American Foresters' "Certified Forester Program," or through membership in the Association of Consulting Foresters.

Pulpwood – Wood used primarily for the manufacture of paper, usually the lower quality parts of trees.

Regeneration harvest – A cut designed to promote and enhance natural establishment of trees and perpetuation of the forest. Three types of regeneration cuts perpetuate even-aged stands: seed tree, shelterwood and clearcut-ting regeneration cuts that promote uneven-aged stands include selecting individual or small groups of trees for removal (e.g. selection harvest or system)

Rotation – The planned time interval between regeneration cuts. The particular interval is related to financial and/or biological maturity of the crop trees and ownership objectives.

Selection harvest – A regeneration cut or system where specific trees are selected to be cut according to prescribed criteria in order to create and maintain healthy, uneven-aged stands. Selection harvests differ from selective cuts, which may include high-grading.

Seed tree harvest – A regeneration cut or system where some mature trees, of good form and preferred species, are left standing in a harvested area to provide desirable seed for natural regeneration of the harvested site.

Shelterwood harvest – A regeneration cut or system designed to stimulate natural reproduction by removing all overstory trees in a staged manner, through a series of harvest cuts over several years. Gradual reduction of stand density (number of trees per acre) creates openings for natural seeding, provides seed source for regeneration and protects young understory trees.

SEQRA – The State Environmental Quality Review Act process is intended to identify and assure that local and State decision-making consider potential adverse environmental impacts of proposed development and other major land use activities.

Silviculture – The practice of controlling forest establishment, composition and growth.

Skid trails – Temporary, low-traffic paths for the transport of logs to the landing.

Softwood – Wood from coniferous trees, including pine, fir, hemlock, spruce and others.

Stream – A watercourse that flows continuously or intermittently in a channel of natural formation on the surface of the ground, with a defined bed and banks, an ordinary high-water mark and an identifiable beginning and end.

Sustainable forestry management – Management in which the volume of wood removed is equal to growth within the total forest, where the long-term health of forest ecosystems is maintained over time.

Timber harvesting – The cutting and removal of trees as a silvicultural practice.

Top-lopping – The practice of removing limbs from the tops of trees that have been felled to encourage decomposition and promote aesthetics. In designated "fire towns," the Environmental Conservation Law (Section 9-1113) requires the removal of all limbs of any evergreen tree felled up to a point where the trunk of the tree has a diameter of no more than 3 inches, unless the tree is felled or salvaged for use with limbs on.

Uneven-aged stand – A group of trees of various ages and sizes growing together on a site. Ideally, all ages are represented, with higher numbers of stems in the younger age classes and fewer in the older.

Watershed – The area of land that drains into a lake, river or river system.

Wildlife habitat – The food, water, cover and space provided by forests for wildlife.

Sources of Additional Information and Technical Assistance

Adirondack Park Agency (518) 891-4050 www.apa.state.ny.us

Catskill Forest Association (845) 586-3054 www.catskillforest.org

Cornell University Cooperative Extension (607) 255-4696 www.dnr.cornell.edu/ext/forestrypage

County Soil and Water Conservation Districts see telephone book for local number

Empire State Forest Products Association (518) 463-1297 www.esfpa.org

The Nature Conservancy (315) 387-3600 www.nature.org

New York City Dept. of Environmental Protection (845) 340-7523 www.nyc.gov/dep

New York Forest Owners Association (800) 836-3566 www.nyfoa.org

New York State Dept. of Environmental Conservation (518) 402-9425 www.dec.state.ny.us/website/dlf/index.html

New York Tree Farm (800) 836-3566 www.treefarmsystem.org NYS Soil & Water Conservation Committee (518) 457-3738 www.agmkt.state.ny.us/soilwater/home.html

Open Space Institute (212) 629-3981 www.osiny.org

Society of American Foresters (301) 897-8720 www.safnet.org

SUNY College of Environmental Science and Forestry (315) 470-6500 www.esf.edu

THRIFT (315) 785-2380 www.tughillresources.org

Tug Hill Commission (315) 785-2380 www.tughill.org

USDA Forest Service (603) 868-7616 www.fs.fed.us

USDA Natural Resource Conservation Service (315) 477-6504 www.nrcs.usda.gov/programs

Watershed Agricultural Council – Forestry Program (607) 865-7790 www.nycwatershed.org



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NYS Department of Environmental Conservation Division of Lands and Forests 625 Broadway Albany, NY 12233-4253 www.dec.state.ny.us/website/dlf/index.html



Empire State Forest Products Association 828 Washington Avenue Albany, NY 12233 www.esfpa.org

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