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Forest Service

Northeastern Area
State and Private Forestry

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NORTHEASTERN AREA STATE AND PRIVATE FORESTRY

Strategic Plan Update for Fiscal Years 2008-2012





I am proud to present the 2008 update of the strategic plan of the Northeastern Area State and Private Forestry (NA). This plan builds on the good work done in 2004, when we first framed the goals and objectives of NA around the criteria and indicators of sustainable forest management adopted by NA and the Northeastern Area Association of State Foresters.

That earlier plan proved to be relevant to NA's constituents and provided a solid foundation. This new plan moves up to the next level: it provides explicit strategies to drive NA's program of work, and a tighter focus on measurable results so we can be more accountable in serving the public.

Challenges facing resource managers are expected to grow in the coming years. In particular, meeting the needs of an expanding human population from forest land that is under increasing stress from environmental change may well be the defining issue for NA and its partners for the foreseeable future. At the same time, traditional means of providing public service are diminishing ... suggesting that we and our service partners must become more innovative and more efficient in order to fulfill our mission responsibilities.

These are the reasons we undertake strategic planning: to remind ourselves and our stakeholders of our shared purpose, to look ahead to the opportunities and threats associated with results we seek, and to work together to ensure that the public benefits of well-managed forests are realized by the American people.

We look forward to continuing to work with our partners, engaging new partners, and sustaining the forests of our Nation for generations to come.

Kathryn P. Maloney
Director

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Table of Contents

Executive Summary.....	1
Introduction.....	3
Mission, Vision, and Guiding Principles	4
External Influences.....	5
What’s New in this 2008 Update?	6
Strategic Goals and Objectives.....	7
Goal 1: Promote Sustainable Forest Management.....	7
Objective 1.A: Conserve the biological diversity of important forest land at risk of conversion and fragmentation	8
Objective 1.B: Sustain the productive capacity of privately owned forest land	11
Objective 1.C: Maintain the health and vitality of forest ecosystems at risk from potentially damaging agents.	14
Objective 1.D: Protect and enhance the health of watersheds.	17
Goal 2: Enhance the capacity of forests to provide public benefits	21
Objective 2.A: Promote and encourage the viability of forest-based industries.....	22
Objective 2.B: Help the Northeast and Midwest to meet their needs for renewable energy, to reduce greenhouse gases, and to conserve energy	24
Objective 2.C: Help communities at risk from wildland fire protect lives, property, and natural resources.....	27
Objective 2.D: Maintain and enhance the benefits that communities within metropolitan areas derive from their forests and trees.	30
Management Principles	33
Management Principle 1	34
Management Principle 2	37
Management Principle 3	40
Appendix A. Cross Reference to USDA Forest Service Strategic Plan, FY 2007-2012	43
Appendix B. Montreal Process Criteria and Base Indicators of Forest Sustainability for the Northeast and Midwest.....	44
Appendix C. NA’s Strategic Objectives by NAASF-Adopted Indicator	45
Glossary	47
References	49
Strategic Goals, Objectives, and Management Principles	55

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Executive Summary

The forests of the Northeast and Midwest, the region served by the Northeastern Area State and Private Forestry (NA), are important to the nation. These 20 States and the District of Columbia contain 43 percent of the nation's population and 25 percent of the nation's forests, of which 92 percent are non-federally owned.

These State and privately owned forests provide significant public benefits. The Federal role is to work across State and other political jurisdictions to sustain these benefits for future generations. A growing population, trends in forest ownership patterns, and increasing environmental threats to forest health present a clear imperative for the strong State and Private Forestry programs carried out by NA.

NA's Mission and Vision

This strategic plan builds from the past as it looks to the future, providing guidance for the next 5 years. Our mission, vision, and guiding principles ensure our accountability for activities that make a positive difference on the land and in people's lives.

Mission: *Lead and help to support sustainable forest management and use across the landscape, to provide benefits for the people of the 20 Northeastern and Midwestern States and the District of Columbia.*

Vision: *We will make principled decisions that help sustain natural resources and maintain public trust. We will honor existing partnerships and nurture new relationships dedicated to the needs of society and the land.*

Indicators of Forest Sustainability

The focus of NA's mission and its strategic direction is sustainable forest management, consistent with the Forest Service mission and authority set by Federal law. An internationally recognized set of 7 criteria and 67 indicators, (commonly known as the Montreal Process), are used at the national level to monitor forest sustainability. Following this framework, the Northeastern Area and Northeastern Area Association of State Foresters adopted the criteria outright and developed a base set of 18 indicators to track trends in forest sustainability across the Northeast and Midwest. These indicators serve as the foundation for strategic planning for the Northeastern Area.



Strategic Goals and Objectives

NA's strategic goals set the direction for our activities during the next 5 years:

Goal 1—Promote sustainable forest management. Includes four strategic objectives intended to reduce forest fragmentation, encourage better forest management, maintain sustainable timber harvests, reduce tree mortality by damaging agents, and protect and improve critical watersheds.

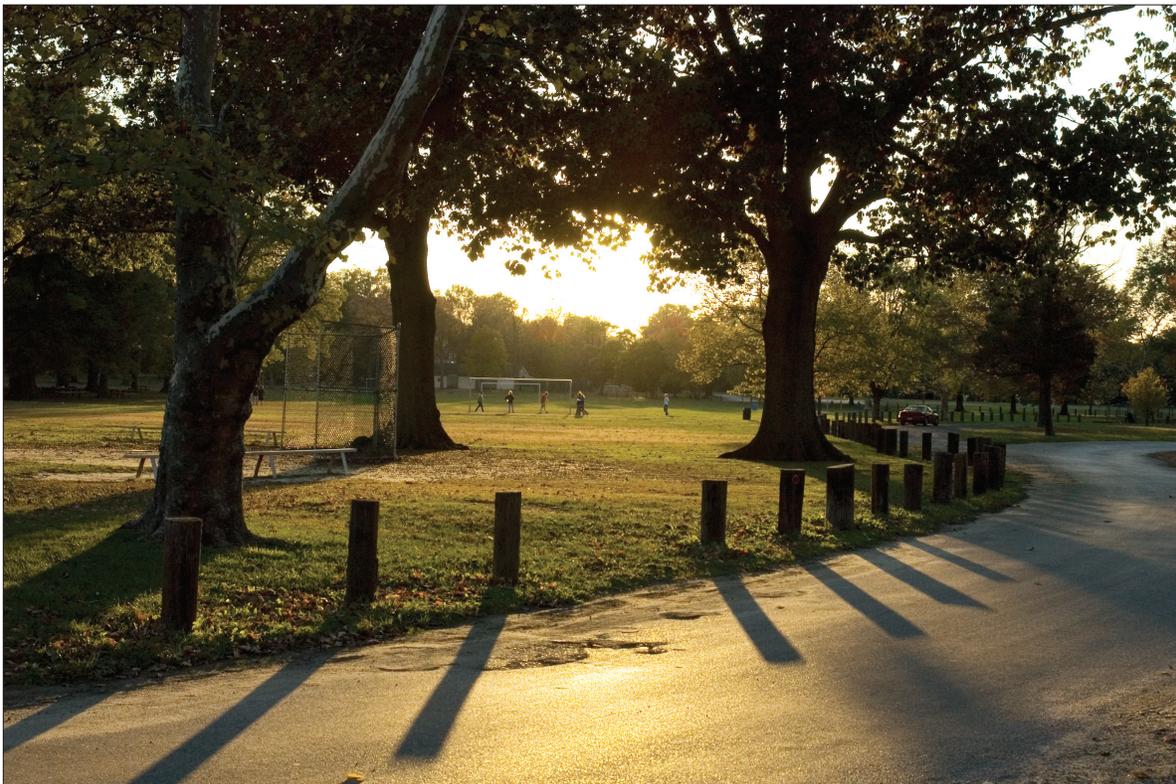
Goal 2—Enhance the capacity of forests to provide public benefits. Includes four strategic objectives intended to increase the forestry sector's competitive edge, capitalize on woody biomass for energy, protect communities at risk from wildland fire, and improve the quality of life in metropolitan areas through tree and forest planning and management.

Management Strategies

Management strategies will guide NA along the path toward meeting the strategic objectives. These strategies consider NA's operating environment, current conditions, key issues, and the desired future we are striving to attain. We will hold ourselves accountable for the accomplishments identified in these management strategies.

Management Principles

The Northeastern Area has identified three management principles critical to effective public service, including organizational capacity of the service delivery network, capitalizing on the diversity of our workforce and stakeholders, and public support for sustainable forest management.



Introduction

The Northeastern Area, as an administrative unit of the State and Private Forestry branch of the Forest Service, U.S. Department of Agriculture, serves the 20 Midwestern and Northeastern States and District of Columbia. Of the 170 million acres of forest land in the region, some 130 million acres are in private ownership, constituting one of the largest concentrations of privately owned forests in the world. The 20 States served by the Northeastern Area State and Private Forestry (NA) also comprise the most densely populated region of the nation.

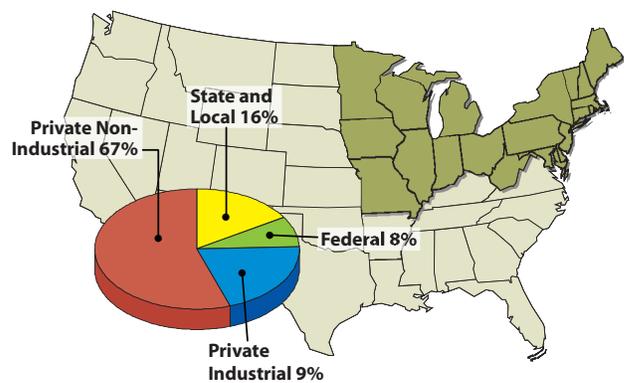
As the region's population grows, its urban centers expand, increasing the demand on the land and its resources. So, although 41 percent of the region is forested, there are just 1.4 acres of forest land to meet the needs of each person living in the Northeast and Midwest. In addition, across the region NA is losing approximately 350 acres of forest land a day; according to Forest Inventory and Analysis (FIA) reports (38). This loss is expected to accelerate over the next 30 years to nearly 900 acres per day (40).

When trying to balance the needs of society with the protection and management of natural resources, difficult sustainability issues emerge. To address these issues, the Northeastern Area works in partnership with State forestry agencies, Tribal governments, and other public and private organizations to *influence* the wise management, protection, and sustainable use of urban and rural natural

resources. These partnerships help sustain forests, enhance air and water quality, protect communities, and contribute to people's relationship with nature.

NA contributes to these partnerships by providing financial support and professional expertise; and by protecting and enhancing forest health on both Federal and non-Federal forest lands. The overarching strategy for all of NA's work is *influence*. Influence is about leverage—using a little to achieve a lot. The principle of leverage is attributed to Archimedes, who once said, “Give me the place to stand, and I shall move the earth!” As daunting as our mission may appear, the Northeastern Area is able to meet the challenge by applying its understanding of leverage. Strategically investing seed money here and applying new technology there have far-reaching effects!

Forest land ownership in the Northeast and Midwest (170 million acres) (37)



Mission, Vision, and Guiding Principles

The Northeastern Area contributes to the Forest Service mission: “to sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations.” NA’s mission, vision, and guiding principles, which are backed by authority and expectations set in Federal law, address the overwhelming proportion of State and private forest land ownership in the Northeast and Midwest.

NA’s Mission statement defines our primary purpose: *Lead and help to support sustainable forest management and use across the landscape, to provide benefits for the people of the 20 Northeastern and Midwestern States and the District of Columbia.*

NA’s Vision describes our ideals about working toward our mission: *We will make principled decisions that help sustain natural resources and maintain public trust. We will honor existing*

partnerships and nurture new relationships dedicated to the needs of society and the land.

NA’s Guiding Principles define how we put our ideals into practice:

- We focus on sustainability as the cornerstone of our management philosophy and objectives.
- We are accountable for our work.
- We work in a focused, integrated, and innovative manner.
- We make decisions collaboratively and base them on sound science.
- We make forest resource and related information widely available.
- We use appropriate measures to make informed decisions and evaluate the effectiveness of past decisions.
- We uphold our business principles (see box).

Northeastern Area Business Principles

Professional Image

- We are committed to the Forest Service, State and Private Forestry, and Northeastern Area missions.
- We are always fiscally responsible.
- We produce professional quality information products.
- We take pride in our work.

Quality Communications

- Our communications are responsive, accurate, timely, and effective.
- The public can always reach a person during business hours.
- We can be contacted in person and by letter, phone, and e-mail.
- We maintain a corporate information system.
- We use standard corporate formats.

Working Relationships

- Customer service (internal and external) is our top priority.
- We foster mutual trust, understanding, and respect.
- We are active listeners.
- We share information and work together.
- We are loyal to the organization.
- We hold each other and ourselves accountable.

Employee Development

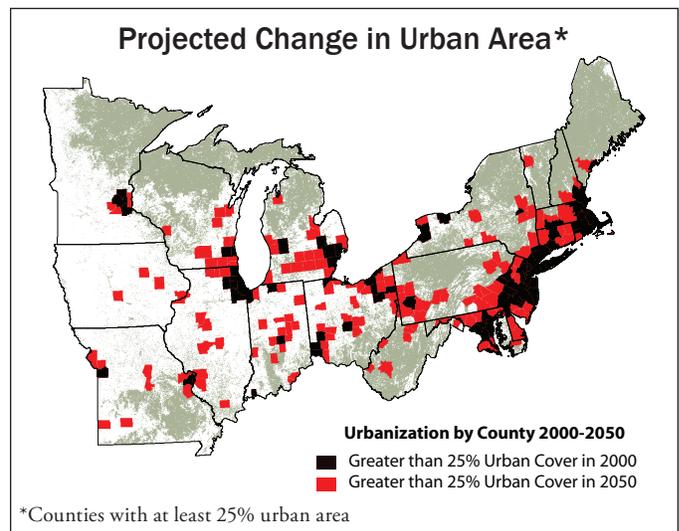
- We value diversity.
- We provide new employees with orientation and time to learn.
- We stay current in our areas of expertise and on critical issues.
- We praise publicly and correct privately.
- We learn and grow from our mistakes and celebrate successes.

External Influences

External factors will influence, and perhaps constrain, NA’s capacity to deliver its mission during this planning period. These social, economic, and environmental factors will likely influence *all* of NA’s mission-critical objectives for the foreseeable future.

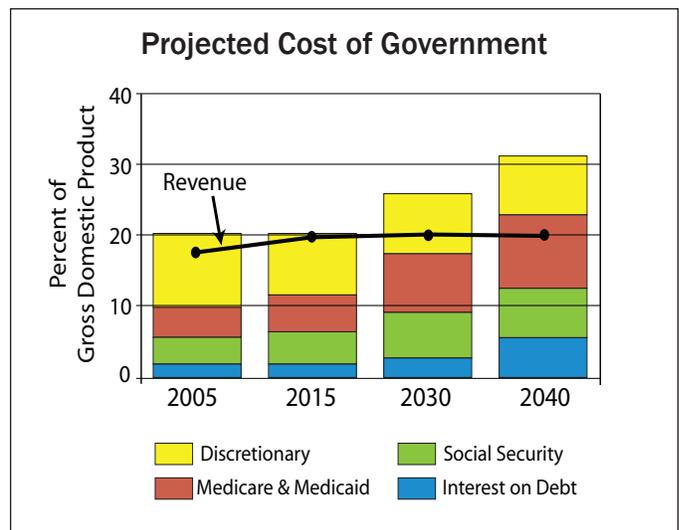
Social factors: Population in the Northeast and Midwest will continue to grow, and urbanizing communities will expand into adjacent forest land.

Census projections for the Northeast and Midwest point to a steady increase in overall population. The vast majority of this growth will expand urban areas, often at the expense of forest land. By 2050, total population across the 20 states is expected to exceed 137 million (49), with a 133 percent increase in urban area (26, 27). Expanding urbanization increases the risk to forest health from wildland fire and invasive species. Accelerated forest conversion and fragmentation threatens ecological function.



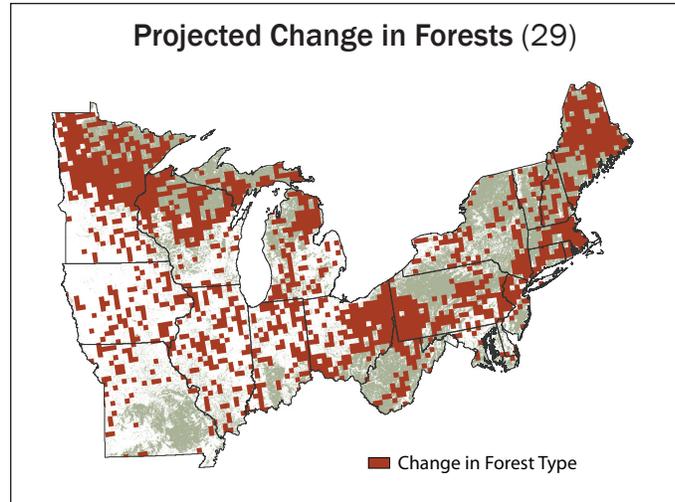
Economic factors: The capacity of Federal government agencies to provide public services will decline as statutory obligations increase.

In 2006, the Government Accountability Office (GAO) projected that within 30 years the cumulative cost of meeting statutory obligations of Medicare, Medicaid, Social Security, and interest on the national debt would equal the current total cost of government (15). The ability to sustain funding for most discretionary public services, including natural resource management, is doubtful.



Environmental factors: The conditions contributing to global climate change, if not diminished, will result in dramatic changes in forest landscapes.

Considerable uncertainty exists with respect to the impacts of global climate change on the Eastern temperate forests of the United States. Most scenarios project initial increases in forest growth from CO₂ buildup, followed by increasing drought, pest infestation, and fire, by the middle of the 21st century (3). The potential exists for widespread ecological impacts on forest land of the Northeast and Midwest (29).



What's New in this 2008 Update?

Continuity of purpose is essential to strategic resource management. Therefore, much of the content of this update is carried over from the 2004-2008 Strategic Plan. Goals 1 and 2 remained the same:

Goal 1: Promote sustainable forest management.

Goal 2: Enhance the capacity of forests to provide public benefits.

Objectives were updated or dropped to reflect our core strengths. Mission-delivery objectives were distinguished from mission-enabling conditions by recasting the previous Goal 3—Provide Effective Public Service—as “Management Principles” in this update.

To provide context for our work, we have incorporated a number of maps and trend graphs. So we can more easily use this strategic plan to drive our program of work and evaluate our effectiveness, we have identified explicit management strategies that align with each of the objectives.

Appendix A ties this strategic plan to the USDA Forest Service Strategic Plan for FY 2007-2012. The Montreal Process Criteria and Base Indicators for the Northeast and Midwest are now in Appendix B. Strategic objectives by NAASF-adopted indicators are now in Appendix C. Terms have been added to the Glossary.

Strategic Goals and Objectives

Goal 1: Promote Sustainable Forest Management

Sustainable forest management is essential in meeting the overall aims of sustainable development: *“development that meets the needs of the present without compromising the ability of future generations to meet their own needs”* (42).

The following objectives focus on selected biophysical aspects of forest management that are critical to the continued capacity of privately owned forest land in the Northeast and Midwest to deliver the socio-economic benefits discussed under Goal 2.



Objective 1.A:

Conserve the biological diversity of important forest land at risk of conversion and fragmentation.



Objective 1.B:

Sustain the productive capacity of privately owned forest land.



Objective 1.C:

Maintain the health and vitality of forest ecosystems at risk from potentially damaging agents.



Objective 1.D:

Protect and enhance the health of watersheds.

Objective 1.A: Conserve the biological diversity of important forest land at risk of conversion and fragmentation.

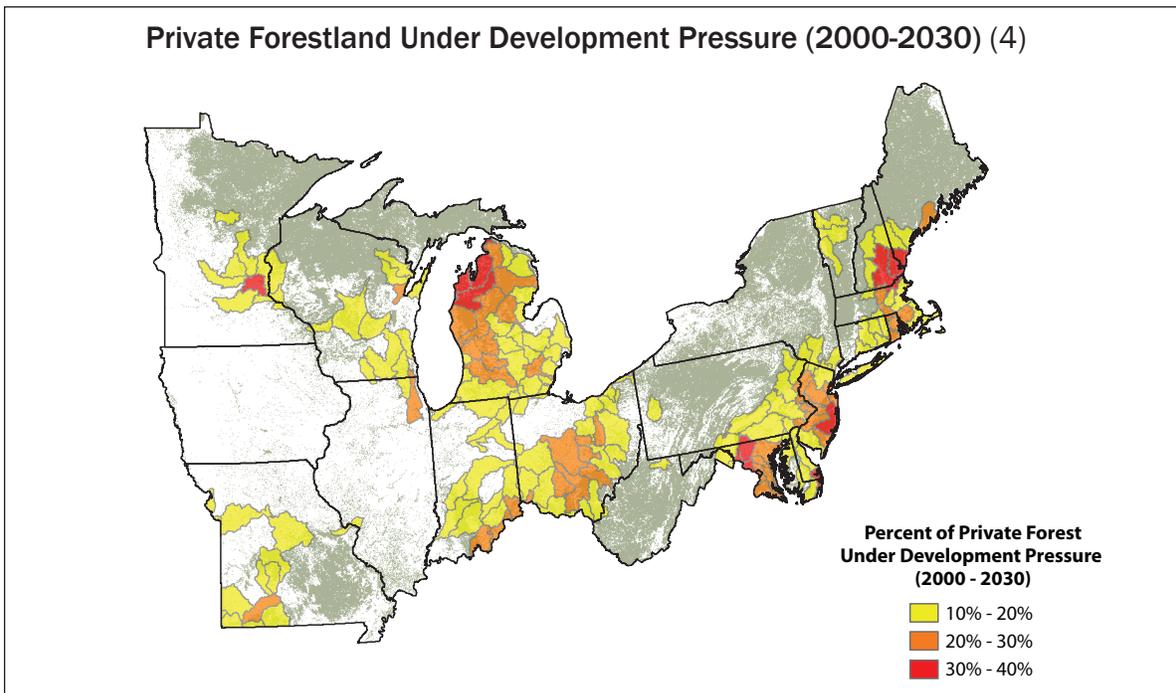
Current Situation

According to the RPA Assessment trends, total forest acreage in the Northeast and Midwest has remained relatively stable—actually increased—over the past 20 or 30 years (1). An assessment of development trends suggests, however, that more than 12 million acres of privately owned forest land in the Northeast and Midwest may be converted to other uses by 2030 (4). This is roughly the total area of forest land in Vermont and New Hampshire combined! From 1882 to present day, this same region lost approximately 3.7 million acres of forest land to development.

In addition to forest land lost to urban and suburban sprawl, population growth is also likely to contribute to fragmentation (division into smaller forest tracts) and parcelization (division into smaller ownership tracts). The

subdivision of forest ownership does not necessarily create ecological impacts, although some feel that it is a precursor to fragmentation. Parcelization also corresponds to a decrease in the proportion of privately owned forest land that is actively managed for a sustainable flow of goods and services. This decrease in management, in turn, makes a parcel of forest land less financially viable for the owner, and more likely to be converted to non-forest uses in the future.

As population in the Northeast and Midwest has increased by about 10 percent over the past decade, the number of private forest land owners has increased by 30 percent. At the same time, the amount of privately owned forest land has remained essentially stable. As a result, the average parcel size of privately owned

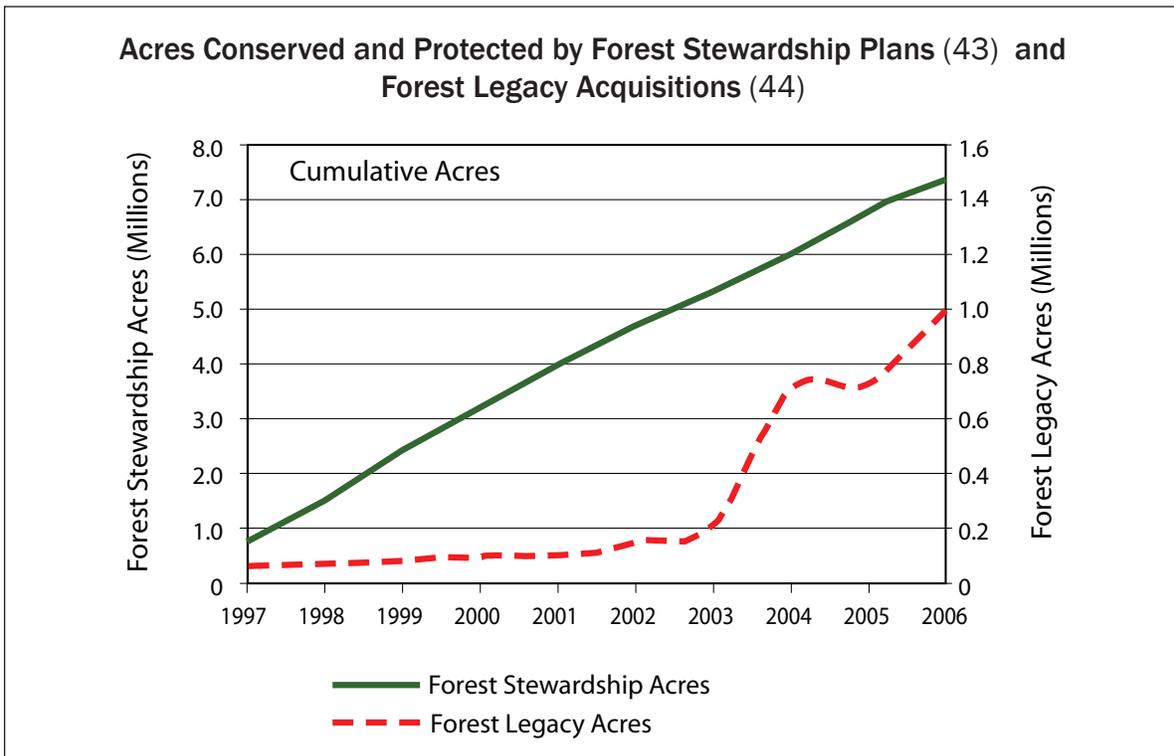


forest land has decreased from 33 to 26 acres (6). While “family forest” ownership has historically been the most volatile, in recent years parcelization of industrial forest land has also accelerated. The globalization of timber markets, coupled with rising operating costs, has resulted in a decline in the management of commercially owned timberland in the Northeast and Midwest. Consequently, the rate at which commercial forest owners have chosen to subdivide and sell heretofore large tracts of forest land has substantially increased.

To counter this trend, programs that place privately owned forest land under sustainable management, or acquire a permanent interest in privately owned forest land, are used to maintain the integrity of important forest land. Over the past decade, more than 8 million acres of privately owned forest land have benefited from the Forest Stewardship and Forest Legacy programs.

Northeastern Area’s Role and Influence

NA promotes public benefits from private forest land by providing services that enable forest landowners to maintain and enhance their lands, understand the resources they own, and receive financial and amenity benefits from their land. Moreover, NA helps States look beyond political boundaries to identify particularly important forest land and protect it in perpetuity, through conservation easements or outright purchase. NA facilitates and mobilizes key partners and organizations in aggregating and brokering opportunities for private forest landowners and providing incentive to maintain large forest properties intact. With limited financial and human resources, NA helps State forestry agencies focus on the most important forest land through assessment and analysis of private forest land conditions.



OBJECTIVE 1.A

Management Strategies

Prioritize investments	Monitor condition and trends associated with forest land area and ownership
	Develop consistent and transparent protocols to identify high priority lands across the Northeastern Area
	Identify and target important forest land at greatest risk of conversion to other uses
Educate partners and stakeholders	Strengthen the public facilitation skills of public and private sector forest land managers
	Train and inform community officials charged with making land-use decisions that affect forest land conversion
	Educate NIPF owners on the options and benefits of active resource management
Assist forest land owners	Increase NIPF acreage being managed under forest stewardship plans where important forest land is at greatest risk of conversion
	Increase the financial viability of forest holdings through the adoption of tax incentives, estate planning, and access to markets for environmental services
Protect at-risk forest land	Support adoption of forest land-use policies by state and local governments
	Support the purchase of perpetual covenants/easements on important forest land at greatest risk of conversion
	Support the acquisition of important forest land at greatest risk of conversion

Relationship to Other Objectives

Objective 1.A influences every other objective in this strategic plan. Objective 1.B is closely associated in that forest land suitable and available for active management determines the amount of timberland. Furthermore, as forest land adjacent to metropolitan areas is influenced by human development, its structural and ecological characteristics may shift from “wild” forest land to “urban” forest land, increasing the amount of resource under the purview of Objective 2.D.

Cross-Cutting Programs

It is critical to utilize existing resource management expertise from landowners, consultants, and all levels of government; existing landowner-assistance programs; and to engage other influential entities, such as land trusts, conservation districts, or RC&Ds. In

addition, NA may seek out alternative financial incentives for developing Stewardship Plans, for example, from nongovernmental organizations, the Natural Resources Conservation Service, and Soil and Water Conservation Districts (SWCD).

External Factors

Factors outside the control of the Northeastern Area that may affect progress toward this objective include accelerated parcelization of private forest lands. Tracts of 500-1,000 acres are deemed most at risk.

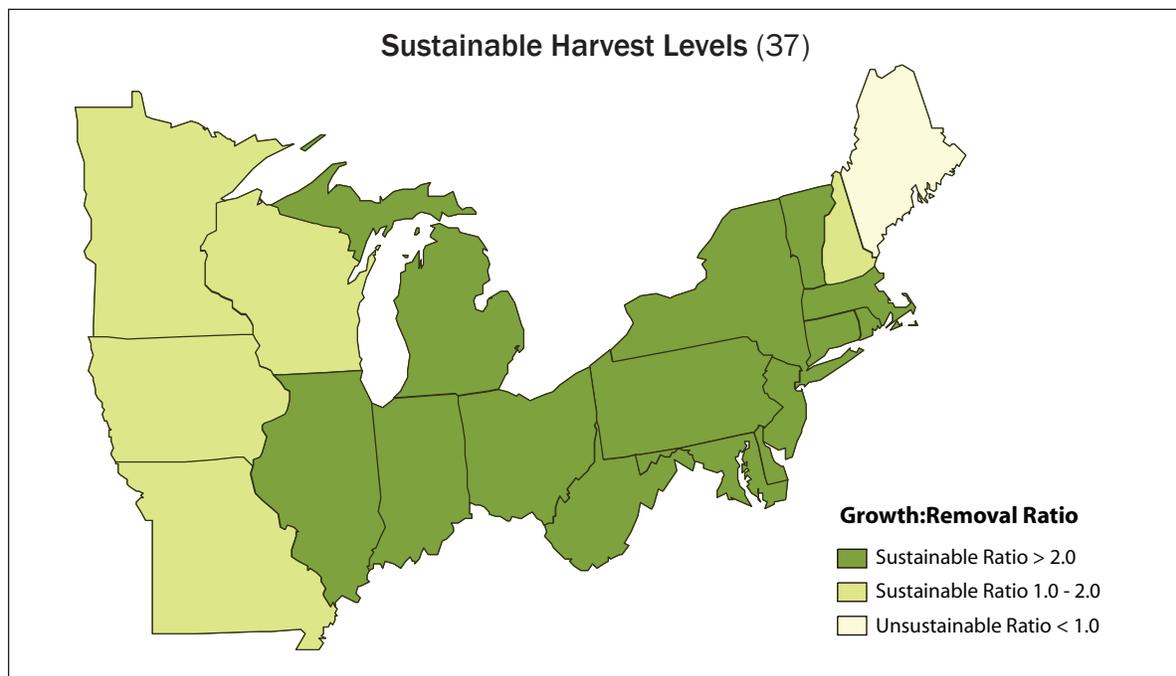
Objective 1.B: Sustain the productive capacity of privately owned forest land.

Current Situation

Almost one-quarter of the wood volume produced in the United States comes from the Northeast and Midwest. Objective 1.B focuses on forest land that is available and capable of producing timber, known as “timberland.” Of all private forest land in the 20 States served by the Northeastern Area, 98 percent is considered “timberland” (16). The ability of timberland to replenish itself is a vital aspect of sustainable forest management, in that it reflects the resiliency of forest land to recover from timber harvesting. One way of tracking the productive capacity of timberland is to compare the rate of timber harvest with the rate at which natural growth replaces the volume of wood that was removed. As long as forest inventories keep pace with harvest removals, we can infer that productive capacity is being sustained and the forest ecosystem is functioning properly (everything else being equal).

Most of the timberland within the Northeast and Midwest is privately owned. More than 70 percent of harvest removal of growing stock is now from *non-industrial* privately owned forest land (16). However, only 5 percent of owners with forested parcels of at least 10 acres have stewardship plans that may stipulate sustainable harvest levels in the Northeast and Midwest. (7). Given the projected trend of even greater utilization of NIPF timberland in the future, the *planned* management of family forests is an increasingly important aspect of sustainable resource management in the region.

While most of the States in the Northeast and Midwest currently exhibit a sustainable level of timber harvesting, some are very close to or have passed that threshold. For example, the State of Maine has had significant losses of its spruce-fir forest from insect damage, resulting in accelerated salvage harvesting that dramatically reduced stocking levels.



OBJECTIVE 1.B

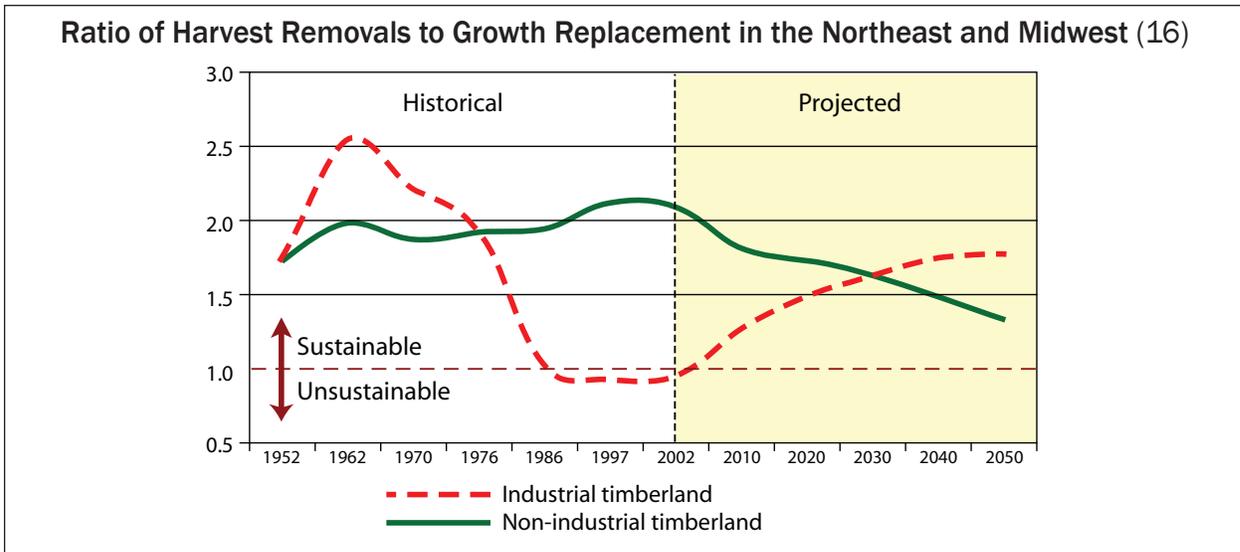
Over the next few decades this may not be an isolated case as climate change stresses cold-adapted forest types, creating similar insect and disease outbreaks that lead to high rates of tree mortality.

Human population trends may also have some impact on the active management of privately owned timberland. Recent studies found a negative correlation between population density and the production of wood fiber from both industrial and non-industrial timberlands. Forest owners in more highly populated areas may have

different management objectives than those in more sparsely populated areas.

Northeastern Area Role and Influence

The Northeastern Area is authorized by the Cooperative Forestry Assistance Act to assist State Foresters in efforts to maintain their forests' productivity. NA promotes sustainable forest management through technical and financial assistance aimed at improving forest conservation, reforestation, and restoration plantings.



Management Strategies

Prioritize investments	Monitor condition and trends associated with private timberland stocking levels
	Identify and target private timberland approaching sustainable production threshold
Educate partners and stakeholders	Strengthen the silvicultural management skills of public and private sector forest land managers to promote sustainable timberland management
	Train and inform community officials charged with making land-use decisions
	Educate NIPF owners on the availability of cost-share forest management programs
Assist forest land owners	Increase NIPF acreage being managed under forest stewardship plans on timberland approaching sustainable production threshold
	Establish markets for low-value forest products
	Develop markets and increase wood utilization in and around metropolitan areas
	Support adoption of "right-to-practice" laws and policies by State and local governments
Regeneration and Reforestation	Monitor plant material production levels in nurseries across the Northeast and Midwest
	Provide technical support to improve quality and productivity of nursery plant material
	Support nursery certification programs

Relationship to Other Objectives

The ability to sustain productive capacity is closely correlated to the amount and structure of forest land, as discussed under Objective 1.A. Intensive management practices that result in unsustainable capacity levels may also be reflected in the ability of watersheds to supply clean water, as described in Objective 1.D. Increased use of wood residues and previously unmerchantable timber for energy production may also be reflected in productive capacity assessments over time.

Cross-Cutting Programs

Progress towards Objective 1.B depends on effective cooperation and coordination among a broad array of Federal and State agencies, and private sector partners:

- The American Forest Foundation, with its Tree Farm Program and traditional ties to the timber industry is directly implicated.
- The various third party certification systems, including SFI and FSC, have a strong interest in promoting sustainable management.
- The U.S. Forest Service's FIA Program provides the nation with facts and figures on forest stocking and structure—critical information in assessing productive capacity.
- Consulting foresters, who are increasingly the landowner's first and primary contact, directly influence whether private forests are managed sustainably.

- Academia and U.S. Forest Service Research contribute to this objective via research on silvicultural systems.
- As carbon and biomass become increasingly important issues in Forest Management, an equally large group of programs and partners come into play, including the Wood Education and Resource Center (WERC) and U.S. Forest Service Research.

External Factors

Factors outside the control of the Northeastern Area that may affect progress towards Objective 1.B include accelerated mortality of forest trees from drought, insects, and disease; and the expansion of human development into forest land previously available for active management. Parcelization of both industrial and non-industrial private forest lands is projected to accelerate, based upon actuarial studies of forest land owners and economic trends in the global forest industry. Expansion of residential development into forest land may inhibit forest management, including timber harvesting. The result would be an increase in stocking levels of timber in the wildland-urban interface.

Objective 1.C: Maintain the health and vitality of forest ecosystems at risk from potentially damaging agents.

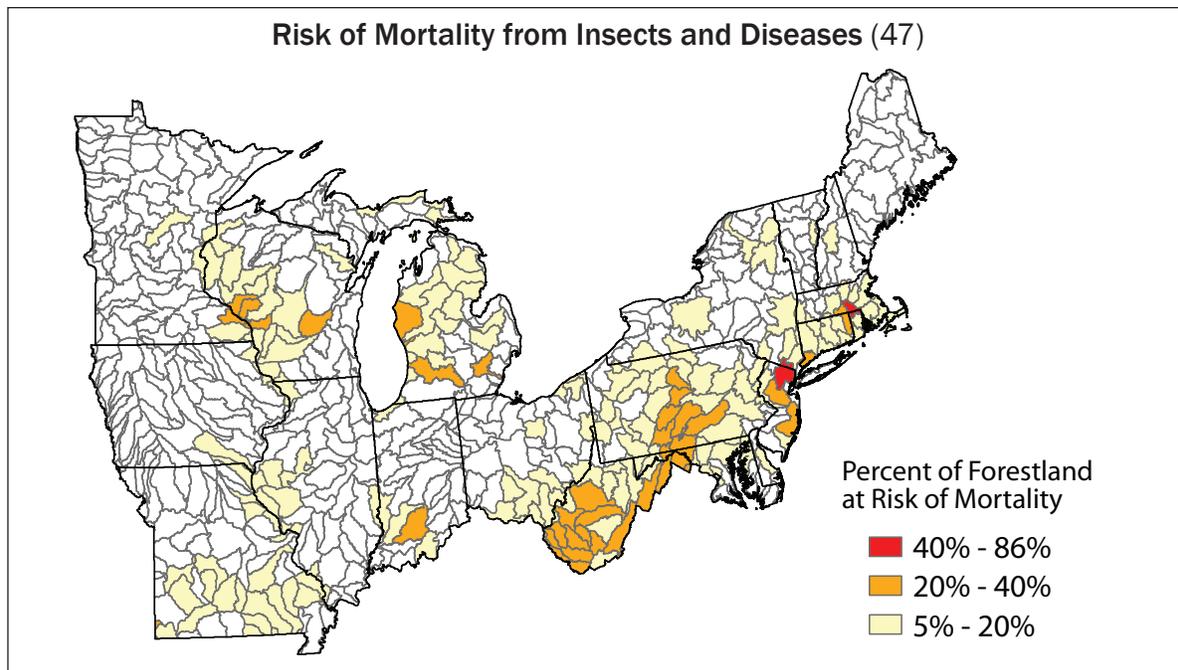
Current Situation

Forest health has been described as “a condition where biotic and abiotic influences on the forest (i.e., insects, diseases, atmospheric deposition, silvicultural treatments, harvesting practices) do not threaten the management objectives for a given forest unit now or in the future.” (45)

The diversity of management objectives, together with potential factors that can impact forest health such as climate change, invasive species, weather events, and human activities, creates complexity in managing forest health issues. Even wildlife management issues can become forest health issues. For example, sustained high populations of deer negatively affect tree regeneration and associated biological values across the region. Fortunately, the need to actively address forest health issues to minimize economic and social impacts and ensure the sustainability of forests is

increasingly being recognized by land managers and society as a whole.

Of particular concern is the increasing rate of introduction of invasive species, primarily from growing global trade, into both urban and general forest environments. Invasive insect and disease species have the potential to cause widespread tree mortality. The Northeast and Midwest have been host to the majority of recent invasive species introductions of national concern, and this trend is expected to continue. For example, the emerald ash borer was first discovered in Detroit in 2002, and by the summer of 2006 it had killed more than *20 million* ash trees across the Northeast and Midwest (46). Preliminary USDA estimates place this one species’ potential impact on the Nation’s urban landscape at \$20 billion to \$60 billion (14).



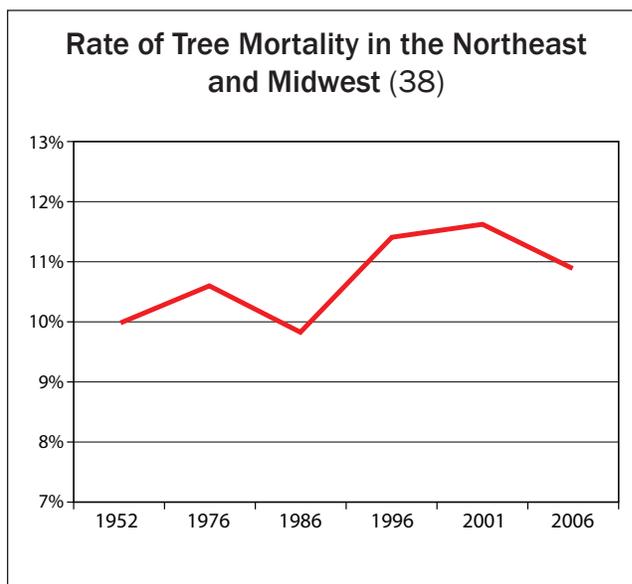
The Northeastern Area has identified a number of native or invasive insects and diseases, and a number of invasive plants that significantly impact or have the potential to impact forest sustainability. Currently more than 1.5 million acres of forest land across the Northeast and Midwest are at risk of losing more than 25 percent of their standing volume of live trees. Although these States have 23 percent of the Nation’s forest land, they contain 66 percent of the Nation’s total area at risk of mortality from exotic insects and diseases (47).

Currently, the most significant threats to forest health in the Northeast and Midwest are posed by four nonnative invasive pests:

- Emerald ash borer
- Gypsy moth
- Hemlock woolly adelgid
- Sirex wood wasp

Twenty individual pest risk maps have been compiled into a National Insect and Disease Risk Map. Views of this risk map depict the biological risk to forests and can assist in identifying priority areas for Forest Service activities (see map).

Over the past 15 years, the rate of forest tree mortality across the Northeast and Midwest has risen marginally. While they are imprecise, projections of climate change suggest that mortality of cold-adapted tree species may become widespread within the next few decades.



Northeastern Area Role and Influence

The Northeastern Area protects the highest priority Federal and non-Federal acres from invasive and native species, pests, and diseases. Towards that end NA provides forest health expertise—including the survey and evaluation of pest populations—to private landowners, all Federal forest land managers, and to federally recognized Native American tribes.

OBJECTIVE 1.C

Management Strategies

Prevent outbreaks and infestations	Provide technical assistance and science-based educational materials on prevention measures for damaging agents
	Increase prevention capacity of communities and landowners at risk of loss from damaging agents
Detect, monitor, and respond to new outbreaks	Monitor condition and trends associated with invasive and native species, pests, and disease pathogens.
	Develop predictive models and conduct surveys to identify and target forest land at greatest risk from invasive and native species, pests, and disease pathogens
	Promote public participation in the detection of damaging agents
	Treat high-threat target species with direct control and silvicultural methods
	Provide leadership and support to increase Early Detection/Rapid Response capacity across all ownerships and ecosystems
Manage established pest infestations	Monitor long-term invasive species population trends and the effectiveness of treatments. Make this information readily available to all stakeholders, public and private
	Identify areas with high concentrations of invasive plants and increase control and restoration activities in those areas
	Promote active treatment of areas at risk from established damaging agents through cost-share incentives and cooperative efforts
Rehabilitate and restore high-priority ecosystems	Conduct education and outreach, stewardship and community planning; replace trees after treatment.
	Educate resource managers and the public on the importance of maintaining intact ecosystems and applying ecological principles to invasive species management
	Improve plant material that is to be available for Federal conservation and restoration programs
	Support efforts to conserve germplasm of native tree and plant species threatened by exotic pests

Relationship to Other Objectives

Stewardship planning of family forests can contribute to the control of invasive species—Objective 1.A. The introduction and initial spread of invasive species often occurs in urban communities, related to Objective 2.D. Aggressive sanitation programs to eliminate dead, dying, or infected host trees may be a potential source of woody biomass for energy production, as long as transport of host trees doesn't contribute to the spread of invasive species—Objective 2.B. Treatment of hazardous fuels and burned area restoration projects associated with Community Protection are positively correlated with protecting forest health—Objective 2.C.

Cross-Cutting Programs

The ability to implement our management strategies depends on sustaining both Federal

and State program capacity. For example, the lead Federal agency for eradication and control of new invasive species is the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture. Managing new invasive introductions requires establishing complex coordination structures often including APHIS, U.S. Forest Service Research and State and Private Forestry, State natural resource and agriculture departments, and universities.

External Factors

Increases in the occurrence and severity of insect and disease issues in the United States are already being attributed to climate change. By mid-century, the climatic stress on forests in the Northeast and Midwest may result in catastrophic levels of tree mortality from opportunistic insect and disease agents.

Objective 1.D: Protect and enhance the health of watersheds.

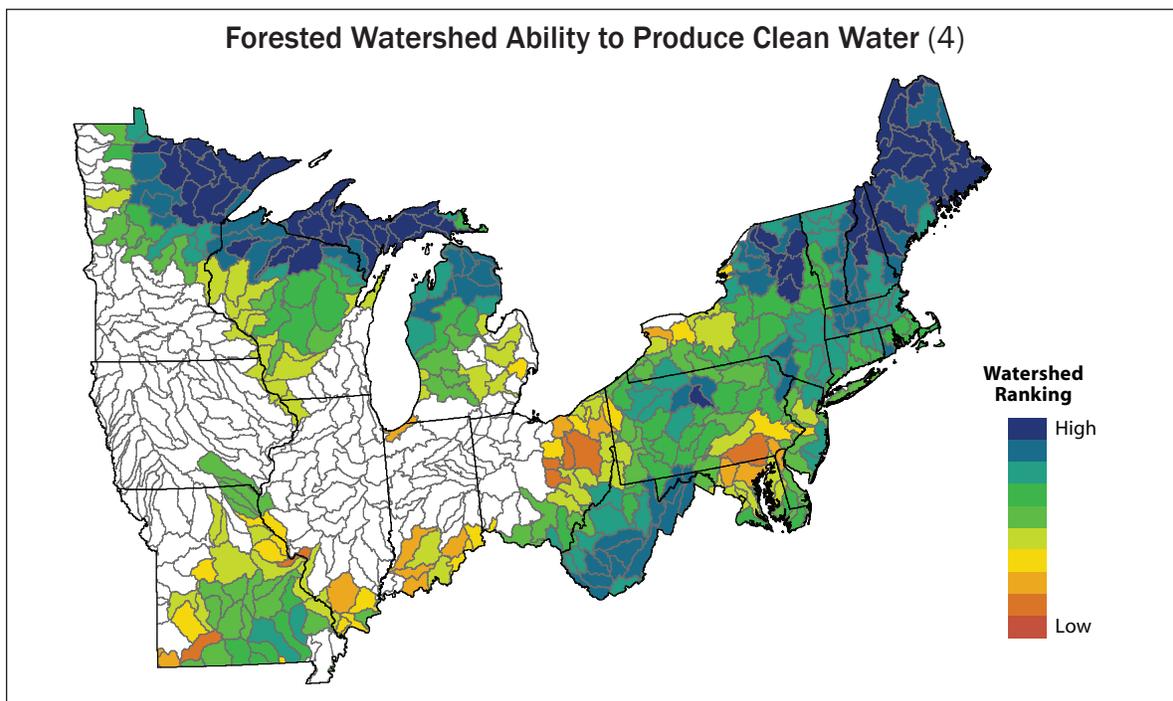
Current Situation

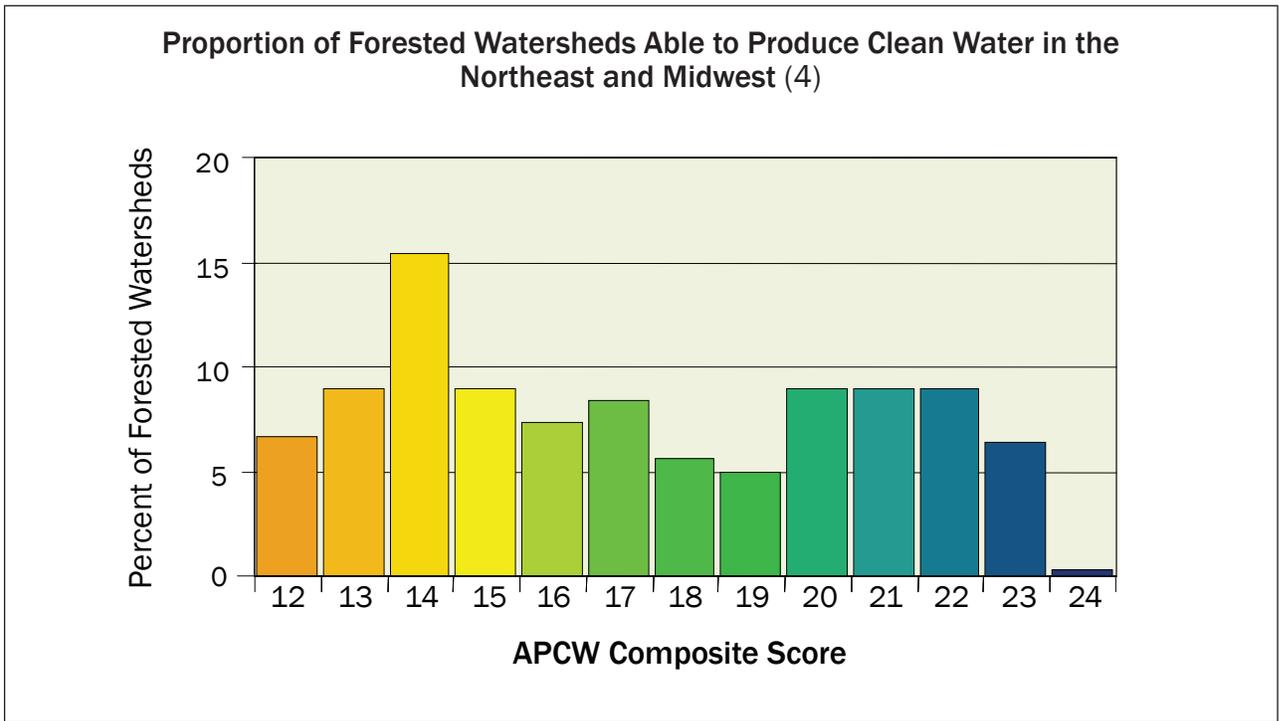
Objective 1.D focuses on the ability of forested watersheds to meet the needs of people and communities. In the Northeast and much of the Midwest, trees and forests are critical to the health and proper functioning of watersheds. Acre for acre, forests provide the best land cover when it comes to protecting soil, moderating stream flow, supporting healthy aquatic systems, and sustaining good water quality (9). In the absence of mitigating actions, conversion of forests to other land uses generally decreases the ability of a watershed to produce clean water.

Nearly two-thirds of all watersheds in the Northeast and Midwest fail to meet water quality standards (64). Water in these areas is degraded primarily by agriculture and urban development. At the same time, more than 52 million residents of the region depend

on surface waters for their drinking water supplies—water that is provided by more than 1,600 separate water systems managed by municipal governments and private water utilities (4). Protecting and managing the forests in these drinking water supply watersheds is essential to sustaining safe and reliable drinking water. Yet, water providers and the public are often unaware of the connection between the forest and the faucet.

Urban development, roads, agriculture, and erosive soils adversely affect water quality, while forest land and intact riparian areas tend to protect water quality. Considering only those watersheds with at least 25 percent forest cover, the map shows the current condition based on a number of biophysical characteristics known to influence the ability to produce clean water. Of these watersheds, roughly 60 percent have conditions favorable to producing clean water,





and the remainder may be candidates for restoration actions. Of the 52 million people depending on surface water sources for their drinking water, nearly 75 percent are served by just 15 percent of the watersheds in the region (4). Growth projections suggest that as much as 12.3 million acres of private forest land will be threatened by conversion by 2030 (4).

Helping States, communities, and water companies protect and properly manage forests in these watersheds is critical. The desired outcome for watersheds in the Northeast and Midwest is to sustain or enhance their ability to produce clean water. With so many areas in need of attention, NA will target watersheds where the conservation, restoration, and proper stewardship of forests are a viable solution to water quality and watershed health issues.

Northeastern Area Role and Influence

The Northeastern Area provides technical support and guidance in the following:

- Watershed assessment and planning,
- Managing forests in drinking water supply watersheds,
- Implementing and monitoring Best Management Practices for forest harvesting,
- Using trees and forests to prevent pollution in urban and agricultural watersheds.

NA also financially supports collaborative efforts and partnerships where watersheds are the context for targeting programs, building local capacity for action, and involving stakeholders. Information on the location of important drinking water supplies, watersheds threatened by high rates of land use change, critical stream restoration priorities, and local partnership capacity help target management actions.

Management Strategies

Build critical mass (Provide watershed leadership)	Restore and protect watersheds by participating in and leading development of watershed-based partnerships
	Heighten public awareness about and communicate the role of forests in water quality and watershed health
Improve management practices	Cooperate with State partners to implement effective Best Management Practice (BMP) Programs, to protect soil and water and apply consistent monitoring protocols
	Improve the consistency and utility of watershed-related data across jurisdictions, including watershed condition, stream impairment, and cost to produce clean water
Protect critical watersheds	Protect important forests from development in watersheds that supply municipal drinking water or support critical aquatic habitat.
	Improve forest management on NIPF lands to protect municipal drinking water supplies
Restore impaired watersheds	Promote public and private programs to restore riparian buffers and bottomland hardwoods, to enhance water quality, and to restore streams, wetlands, and habitat

Relationship to Other Objectives

Since watershed health is directly affected by the amount, distribution, and condition of forest lands, the ability to protect and enhance watershed health will be directly affected by Objectives 1.A and 2.D. Increasingly, attention is drawn to the rural-urban interface—where development pressures are rapidly changing watersheds and the opportunity may be greatest to prevent future impacts. Expanding urban tree canopy is a key strategy for addressing runoff impacts in developed watersheds and will benefit from Objective 2.D.

Cross-Cutting Programs

Protecting and enhancing watershed health requires working with multiple landowners, jurisdictions, and interests in mixed-ownership watersheds. In cooperation with State Foresters, NA targets cooperative forestry programs, facilitates demonstration projects, provides technical and financial assistance, provides education and training, and works in partnership at the regional and local levels to protect and enhance watersheds. Watershed forestry projects are often the testing grounds for approaches that link forests and water, and can be applied elsewhere.

External Factors

Separating out the effect of forests on water quality in a specific stream or watershed can be difficult. The effects of forest management actions can be easily overshadowed by effects that are outside NA’s control: development, point source pollution, severe weather, or agricultural activities. State and Private Forestry has no directly funded programs that target watershed management. The Natural Resources Conservation Service and other Federal agencies, such as the EPA, have a direct and significant effect on the types of actions undertaken by landowners and communities in terms of forest retention, restoration, and management. NA does not make the decisions that affect the ability to produce clean water but rather works to influence sound decisions at the local level.

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Goal 2: Enhance the Capacity of Forests to Provide Public Benefits

The Objectives under Goal 2 are directed at sustaining the flow of goods, services, and other societal benefits from private forest land in the Northeast and Midwest.



Objective 2.A:

Promote and encourage the viability of forest-based industries.



Objective 2.B:

Help the Northeast and Midwest to meet their needs for renewable energy, to reduce greenhouse gases, and to conserve energy.



Objective 2.C:

Help communities at risk from wildland fire protect lives, property, and natural resources.



Objective 2.D:

Maintain and enhance the benefits that communities within metropolitan areas derive from their forests and trees.

Objective 2.A: Promote and encourage the viability of forest-based industries.

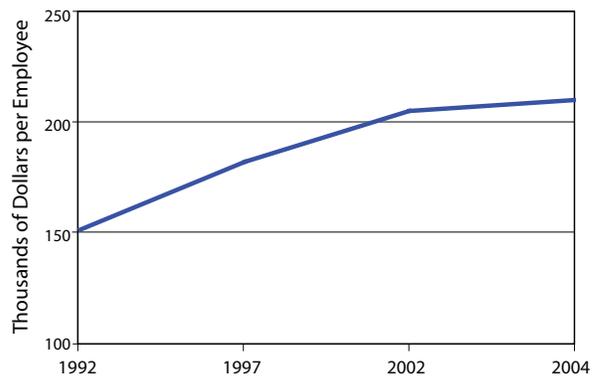
Current Situation

The forest industry in the Northeast and Midwest States has been impacted by a convergence of factors, including high operating costs, low market values, global competition, and workforce challenges. Nevertheless, there is still an increasing demand for certain value-added forest products, such as kitchen cabinets, flooring, and furniture. In addition, the use of low-value woody biomass and mill residues to generate heat, power, and bio-refined products is projected to increase.

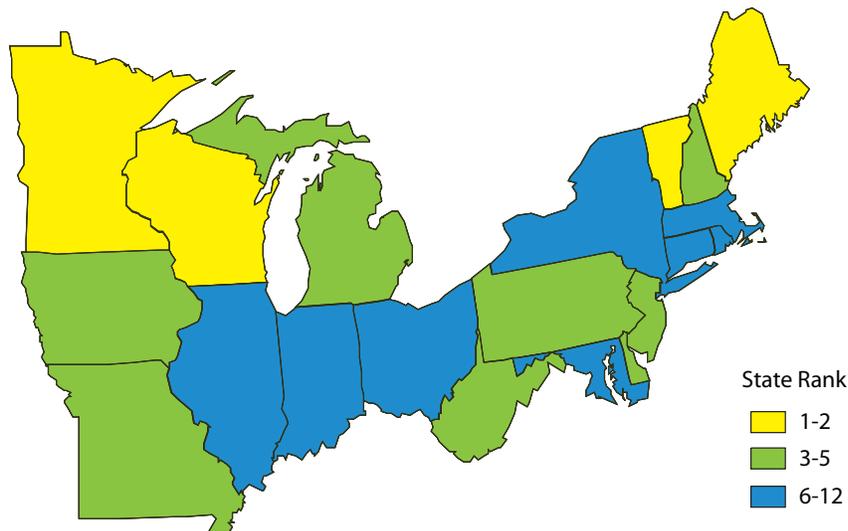
There are more than 16,000 wood products, paper and paperboard, and wood furniture manufacturing industries in the Northeast and Midwest. These industries employ more than a half-million people, and provide more than \$20 billion in salary income. From a national perspective, these industries represent 43 percent of total employment and 45 percent of total payroll for this sector of the U.S. economy (53).

Considering payroll, wood-related manufacturing is ranked first or second among all manufacturing sectors in 4 of the 20 States served by NA. The largest of these industries is paper manufacturing, which accounts for roughly 44 percent of wood-related industry employment in the region, and more than 50 percent of the total payroll and value of products (54).

Forest Related Employee Productivity in the Northeast and Midwest (54, 55, 56)



Payroll Rank of Wood Industry Among All Manufacturing Jobs (54)



Wood-related industries produce shipments worth roughly \$117 billion. Productivity in relationship to total value of shipments is about \$204,000 per employee (54).

Still, international competition is challenging the viability of the region's wood-related industries. For example, China's pulp and paper industry, in which labor costs are one-fortieth of U.S. domestic costs, is predicted to become as large as the U.S. industry by 2011 (32).

To become or remain competitive, many wood products manufacturing businesses are incorporating new technology and processes.

Internet-based marketing, utilization of low-value growing stock, automated facilities, and collateral production of energy from biomass are just a few of the ways that industry is working to keep productivity high, and remain competitive.

Northeastern Area Role and Influence

The Northeastern Area has the capacity, resources, and program networks to promote and enhance viable forest-based industries in the Northeast and Midwest.

Management Strategies

Improve workforce knowledge and skills	Conduct workshops and training sessions at WERC and other locations
Increase information exchange	Provide assistance to maintain and/or improve employee productivity through technical or financial assistance, or both
Improve efficiency and productivity	Partner with organizations through grants and agreements to address specific, key issues affecting the economic competitiveness of the industry.
Promote a sustainable wood fiber resource	Promote sustainable methods for wood harvesting and utilization concurrently encouraging value-added uses.

Relationship to Other Objectives

A viable wood products industry must have timberland to supply raw materials, as well as a sustainable flow of those materials, as described in Objectives 1.A and 1.B. Conversely, a viable wood products industry creates an incentive to manage forest land for wood fiber production, rather than convert that land to nonforest uses, contributing to Objective 1.A. Furthermore, the residues from mills and wood manufacturing plants may also contribute to the flow of biomass for energy production, Objective 2.B.

tribes, and industry and community leaders. Progress will also depend on coordination among Northeastern Area program staffs, such as Forest Health, Stewardship, and Urban and Community Forestry, as well as with similar State forestry staffs. In addition, WERC activities will try to influence and foster interaction and information exchange with the forest products industry.

Cross-Cutting Programs

Progress towards Objective 2.A depends upon effective coordination with other Federal, State, and local agencies, as well as universities, not-for-profit organizations, for-profit organizations,

External Factors

Factors outside the influence of the Northeastern Area that may affect progress toward this objective include global competition, currency exchange rates, illegal logging on a global scale, Federal and international trade regulations, economic health, and environmental laws.

Objective 2B:

Help the Northeast and Midwest to meet their needs for renewable energy, to reduce greenhouse gases, and to conserve energy.

Current Situation

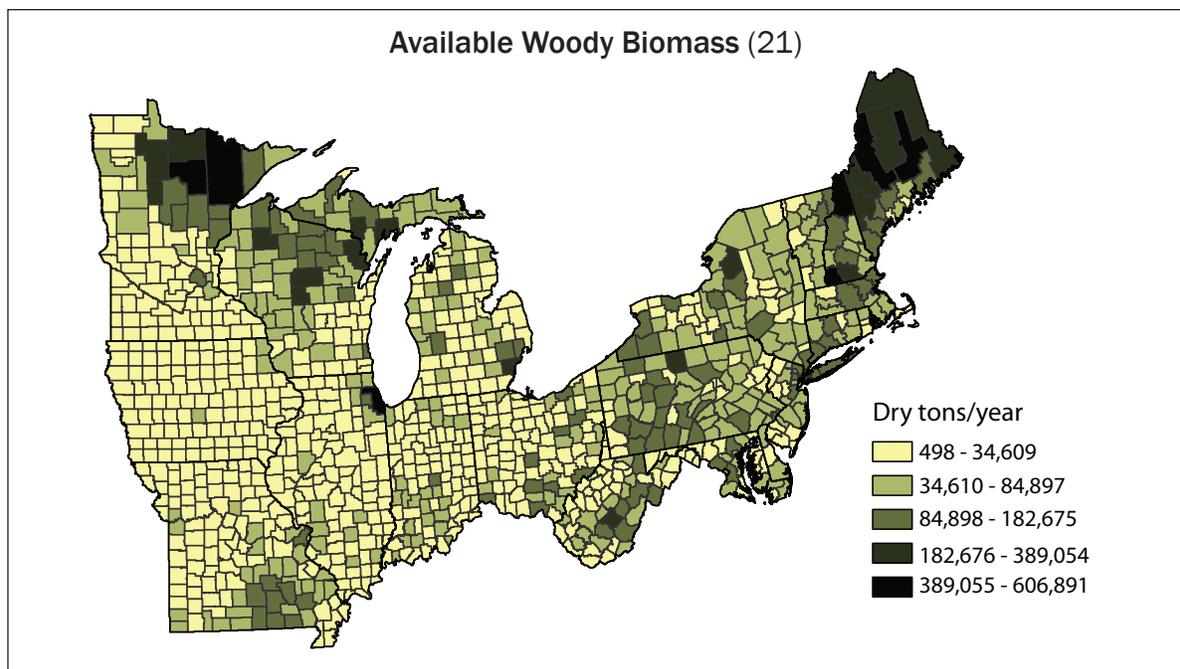
Objective 2.B focuses on using forest resources to both augment and conserve energy. From a conservation standpoint, trees can reduce the demand for energy. Shade and transpiration reduce air temperature under tree canopies by several degrees in urban heat islands, lowering building temperatures, and reducing the demand for electricity. Trees also remove CO₂ from the atmosphere and store the carbon within their biomass, through their growth process. All of these tree functions combined translate into hundreds of millions of dollars in sequestered carbon, reduced energy demand, and lowered emission of greenhouse gases across the Northeast and Midwest each year (24).

Many communities and industries are now looking at woody biomass as a renewable source

of energy and as a tool to reduce greenhouse gases. Woody biomass includes residue from forest management and sawmills, urban wood waste, and short rotation woody crops grown for energy utilization.

Woody biomass utilization can range from small operations like trailer-mounted bio-energy units, small urban sawmills, or community district energy facilities, to large-scale commercial operations like wood pellet plants, wood-fired electrical power plants, bio-refineries, and the associated wood handling infrastructure that goes with them.

The most promising short-term actions include expanding use of woody biomass in existing markets (such as heat and power generation at forest products industries) and finding new uses for small-diameter materials. Longer-term actions focus on facilitating the use of woody

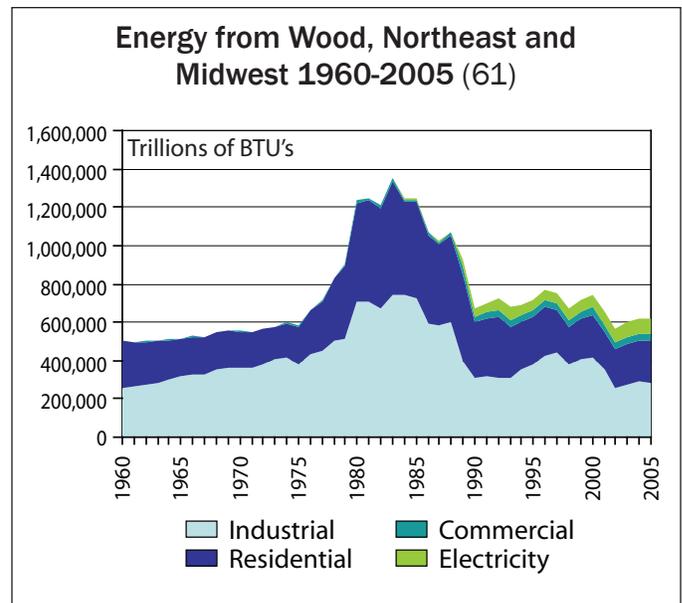


biomass as new high-value bio-based products, expanding renewable energy markets, and using trees grown as energy crops. The greatest concentrations of forest biomass are in northern Maine, New Hampshire, Minnesota, and Wisconsin (map). Opportunities to use woody biomass for energy and to reduce greenhouse gases occur throughout the Northeast and Midwest, in both rural and urban areas. For example, one semi-trailer load of chipped wood residue can meet the energy needs of two households for a year (62, 63). The more heavily stocked counties across the region can fill more than 10,000 truckloads every year.

Woody biomass utilization can be an important part of renewable energy development and greenhouse gas reduction strategies. The sustainable use of woody biomass for energy offsets the use of fossil fuels and reduces the production of greenhouse gases, while promoting forest health and economic stability. The use of woody biomass for energy may also increase the value of privately owned forest land in the future. For example, financial markets currently exist for air pollution offsets, renewable energy credits, and carbon sequestration credits.

Northeastern Area Role and Influence

The Northeastern Area supports woody biomass utilization within the capacity of the land. NA encourages local entrepreneurial actions by our partners that contribute to this objective. Towards that end, NA identifies and builds partnerships, facilitates a sustainable supply of woody biomass, transfers appropriate technology based on science-based research, and seeks out new markets for our partners and constituents.



Management Strategies

Determine feasibility	Identify and analyze opportunities for the sustainable use of woody biomass as an energy source.
Transfer information and technology	Develop case studies, fact sheets, subject area briefs, workshops, and conferences that support development of the sustainable use of woody biomass.
	Develop and disseminate guidelines for the sustainable use of woody biomass.
Develop and expand markets for woody biomass	Identify markets needs, analyze opportunities, fund pilot projects, work with financial community and existing businesses or start-ups.
Expand woody biomass availability	Increase biomass availability through active forest management, hazardous fuel reduction, improved harvesting technology, and increased availability of woody residues
	Provide technical assistance to produce appropriate plant material and successfully establish short rotation woody crop plantations.
Demonstrate success	Work with cities, schools, hospitals, and businesses to demonstrate the use of woody biomass for energy (heating, cooling, process steam, power) and other value-added uses, as well as strategic tree planting to reduce overall energy consumption in summer and winter.

Relationship to Other Objectives

The availability of woody biomass is closely correlated to Objectives 1.A and 1.B. In particular, as harvest removals reflected in 1.B increase, the supply of woody biomass increases. If the rising value of woody biomass for energy production drives harvest removals, productive capacity may be negatively impacted. On the other hand, the effective utilization of woody biomass may contribute to forest industry viability, Objective 2.A. A *targeted* woody biomass strategy can contribute to reducing the impacts of insects and diseases, Objective 1.C, help protect communities at risk from wildland fire, Objective 2.C, and maintain and enhance the benefits communities derive from the urban forest, Objective 2.D. BMP's must be followed or this objective could negatively impact the ability of forested watersheds to produce clean water, Objective 1.D.

Cross-Cutting Programs

Progress towards Objective 2.B depends upon effective coordination with other Federal and State agencies, as well as private sector partners.

For example, at the Federal level USDA Rural Development has programs that can fund community infrastructure improvement projects, and these funds could be used to develop woody biomass energy options at hospitals, schools, or public housing facilities. At the State level, coordination with State energy offices, and State facility managers could yield opportunities to use woody biomass to meet State renewable energy mandates at facilities, such as State office complexes, hospitals, schools, universities, and prisons.

External Factors

Factors outside the control of the Northeastern Area that may affect progress toward this objective include declining fossil fuel prices, Federal budget reductions, and development of new energy products that are more cost effective than woody biomass. The possible acceleration of tree mortality due to climate change may expand the supply of woody biomass.

Objective 2.C: Help communities at risk from wildland fire protect lives, property, and natural resources.

Current Situation

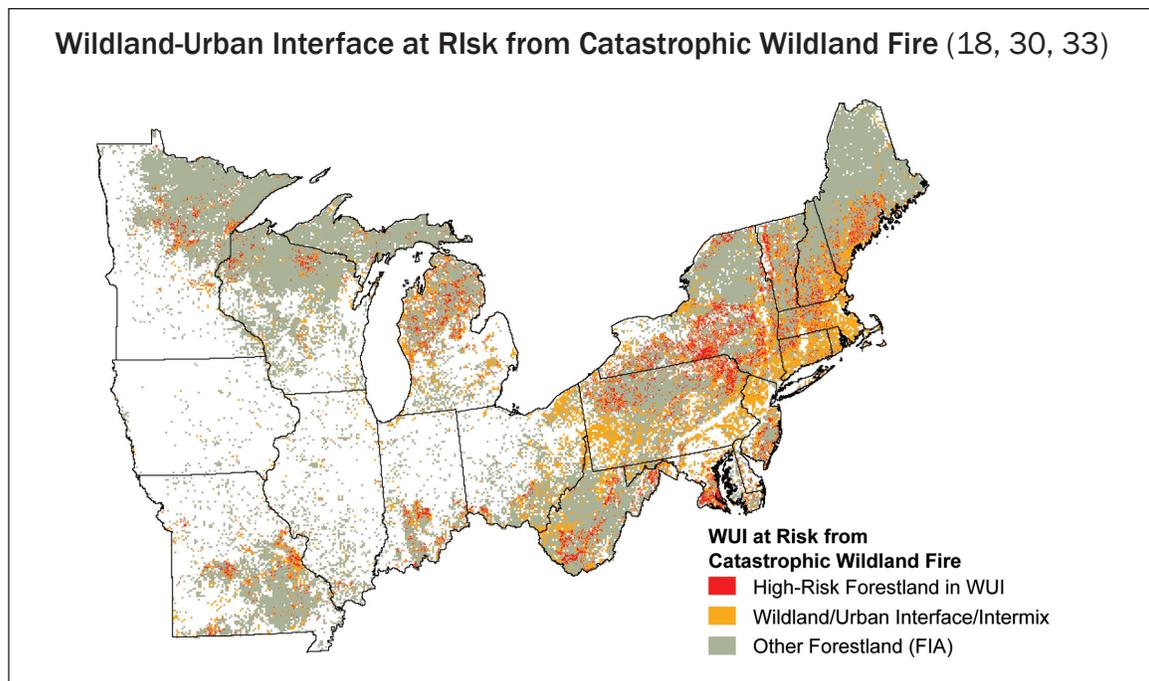
Each year, an average of 15,700 wildfires burn more than 175,000 acres throughout the Northeast and Midwest. These fires, on both public and private forests, are suppressed by the 13,500 volunteer fire departments and State forestry agencies that NA supports through the Cooperative Fire Program (48).

Roughly one-third of the people living in the Northeast and Midwest are in communities interfaced or intermixed with forest and grassland—known as the “wildland-urban interface” or WUI. Projections suggest that by 2010 the number of housing units in WUI may increase by more than 10 percent (30).

This interface of human development and forest and grassland increases the potential for and risk of loss of life and property from wildland fire, as well as the complexity of protecting communities in these areas. The threat is

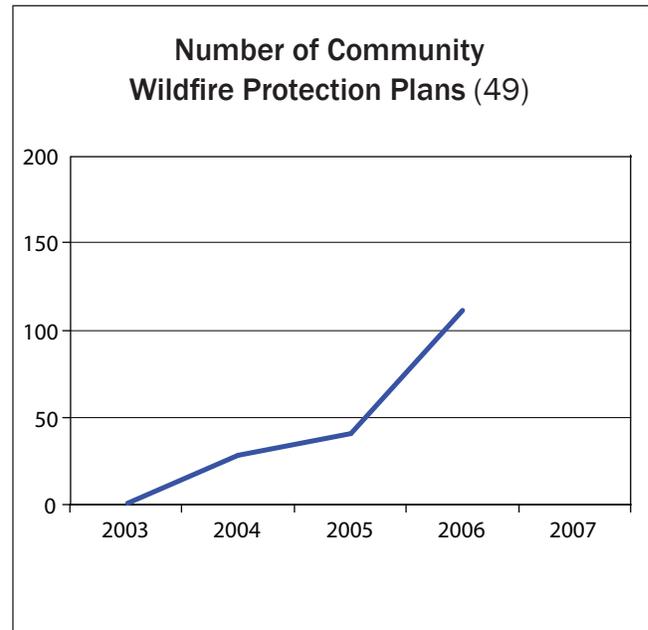
greatest where the risk of catastrophic wildland fire is most severe. Nearly 63 million acres of forest land in wildland-urban interface areas in the Northeast and Midwest are potentially at risk (30).

In addition to human development, many other factors influence conditions within the wildland-urban interface areas of the Northeast and Midwest. These include the presence of fire-prone invasive plants that change the native plant regime, insects and diseases that cause mortality and create fuels, small ownership parcels that limit large-scale hazard mitigation practices, the non-utilization of forest products that can increase fuels and decrease forest health, and the exclusion of fire where natural fire is part of the ecosystem. The potential for human-caused fire and the risk of property loss are significantly higher in these areas.



OBJECTIVE 2.C

The Healthy Forests Restoration Act of 2003 called for the reduction of risk to communities and municipal watersheds from wildland fire through a collaborative process of planning, prioritizing, and implementing hazardous fuel projects. The act directs the creation of locally developed, and locally supported solutions for the protection of communities at risk from wildland fire—known as Community Wildfire Protection Plans. The State Foresters have the lead role in identifying the communities at risk from wildfire within their States.



Northeastern Area Role and Influence

The Northeastern Area State and Private Forestry provides technical support and guidance in developing and implementing Community Wildfire Protection Plans. NA also provides technical and grant support to State programs and volunteer fire departments, for implementation of plans for hazard mitigation, capacity building, fire prevention, and public and firefighter safety.

Management Strategies

Improve the knowledge base	Collaborate with the science community and State partners to describe fire risk in ways that are more relevant to the Northeast and Midwest
Help communities prepare for wildland fire	Assist communities identified as being at risk of wildfire to develop Community Wildfire Protection Plans, enact protective ordinances, and plan fuel treatments.
	Work with partners to develop an integrated planning approach to the full range of resource issues facing NA's communities
Improve community suppression capability	Provide equipment, training or other assistance to communities identified as being at risk of wildfire to improve their ability to suppress wildfire and respond to local incidents without the help of State or Federal resources.
Protect communities	Reduce hazardous fuel loading threatening communities at risk from catastrophic wildfire

Relationship to Other Objectives

Community protection from wildland fire is positively correlated to each objective under Goal 1. The integration of Fire Management planning and practices in the management of natural resources promotes healthy forests (Objective 1.C) and is key to the management of a sustainable forest land base throughout the Northeast and Midwest. Objective 2.B also supports this objective, in that the utilization of wood residue has the potential to mitigate hazardous fuel loading. Population growth and expansion of development into areas of high fire risk requires tighter coordination and better cross-communication with Objective 2.D.

Cross-Cutting Programs

The National Association of State Foresters has a leading role in identifying the communities at risk from wildland fire throughout the United

States and is a signatory in the collaborative development of the Community Wildfire Protection Plans. The outcome of these plans is determined by the actions taken by local communities and the State forestry agencies which bring about improved protection to people, natural resources, and communities.

External Factors

Factors outside the control of the Northeastern Area that may affect progress toward this objective include increasing demands on the agency's human and financial resources from large fire operations; accelerated mortality of forest trees from drought, insects, and disease; and judicial constraints limiting the full range of resource management treatments on adjacent public lands.

Objective 2.D: Maintain and enhance the benefits that communities within metropolitan areas derive from their forests and trees.

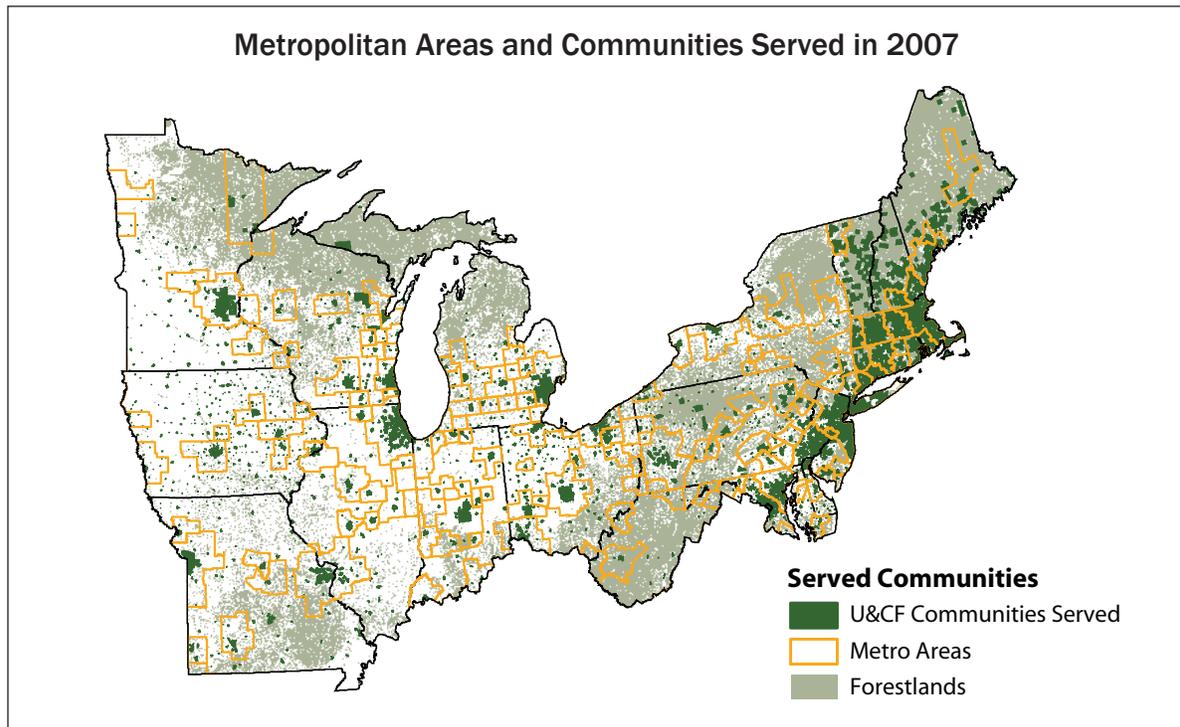
Current Situation

Of the 124 million people who called the Northeast or Midwest home in 2005, more than 100 million lived in metropolitan counties surrounding densely settled urban population centers (57, 58). These counties contain 30 percent of the region's land area and 25 percent of the region's forested acreage. In terms of human and community benefits, this is arguably the most valuable forest land in the 20-State area. Yet we are losing more than 350 acres per day to human development and urban/suburban sprawl (38).

Objective 2.D focuses on sustaining the environmental services that communities derive from tree and forest cover within metropolitan areas. These urban forests directly influence public health and community well-being by

providing these services: clean water, fresh air, cooler summer temperatures, and reduced air pollution. To achieve the same environmental conditions without tree cover, urban communities would have to turn to costly technological solutions.

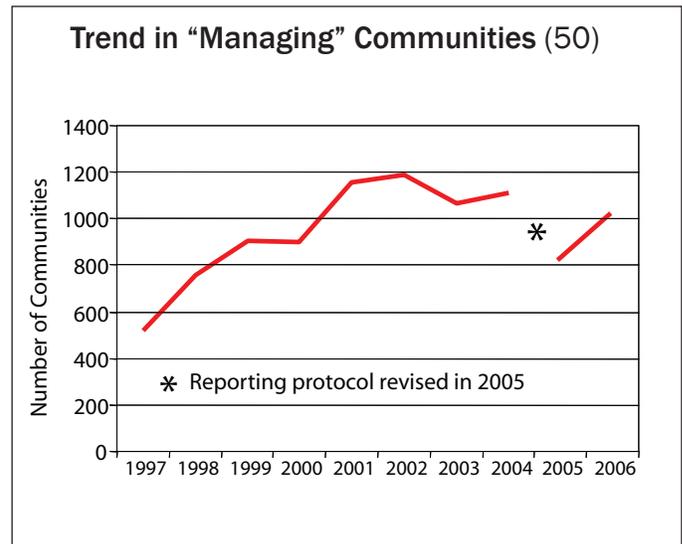
The functional benefits derived from trees and forests in urban communities, such as carbon sequestration, air pollution mitigation, storm water reduction, and energy conservation are conservatively valued in the hundreds of millions of dollars across the region. These benefits are increasingly important drivers for tree planting and open space investment decisions. For example, in New York City, a study of benefits and costs associated with maintaining more than 590,000 street trees (not including an estimated 4.5 million park



and private trees), calculated an annual benefit of about \$122 million, or \$5.60 for every \$1 spent in planting and maintenance (31). The estimated replacement cost for all the trees located in communities throughout the Northeast and Midwest, not considering their broader functional benefits, has been pegged at roughly *\$1 trillion!* (25)

State forestry agencies report 1,023 communities (out of 9,066 with potential) in the Northeast and Midwest have achieved locally sustainable programs to manage their urban forests, and another 2,496 are in some level of development (50). Sustainable programs are defined as having professional staff, protective ordinances or policies, as well as advocacy groups, and management plans in place to assure a continued stream of benefits over time. Communities in development have one or more of the elements and are actively receiving technical or financial assistance to achieve their management objectives.

Assessment methods that are emerging will allow urban planners and managers to better understand not just the extent, but also the condition and function of their forest infrastructure. The Forest Service's FIA Program has begun sampling urban forest plots to help determine the health and diversity of the urban forest, while the Northern Research Station with NA support is systematically evaluating the actual and potential contribution of tree cover in the urban communities of the Northeast and Midwest.



Northeastern Area Role and Influence

The Northeastern Area helps communities to plan for and sustain their trees and forests, and to optimize the benefits they derive from urban tree cover. NA focuses its efforts on communities within metropolitan areas that are proactively setting goals, demonstrating leadership in the protection and sustainable management of urban forests, and leveraging the capacity of nongovernmental organizations and academic institutions.

OBJECTIVE 2.D

Management Strategies

Set goals and institute policies	Assist communities in setting goals and instituting policies to conserve, protect, and enhance strategic tree and forest cover at the landscape scale
	Work with partners to develop an integrated planning approach to the full range of resource issues facing communities
Improve tree and forest management	Assist communities in improving tree and forest management
	Provide technical assistance and science-based educational materials on the value and benefits of healthy urban forests
Enhance the health of urban watersheds	Work with partners to develop an integrated planning approach to the full range of resource issues facing communities
	Promote innovation in design and planning for low impact development, encouraging States and communities to incorporate trees into watershed practices

Relationship to Other Objectives

Progress towards this objective is closely correlated to the efforts being made towards Objective 1.A, since much of the “important” forest land we are focused on protecting and conserving lies in the projected path of urban expansion across the Northeast and Midwest. Energy conservation and the utilization of urban wood waste for energy production as a component of an effective management program is positively correlated to Objective 2.B. The community goals and policies promulgated through Objective 2.D are critical for success of Objectives 1.B, 1.C, 1.D, and 2.C

Cross-Cutting Programs

Cooperative fire protection, and forest pest detection and suppression programs are necessary to reduce the threat of catastrophic loss to trees and forests in metropolitan areas. Collaboration with Cooperative Forest Management Program staff across the continuum of land use, from inner city to rural community, can leverage agency capacity and result in greater benefits to people and communities within metropolitan areas. Coordination with State forestry agencies to assure consistency in desired outcomes for trees and forests in metropolitan areas will further leverage capacity and strengthen results.

External Factors

Growth in population and the resulting expansion of cities, towns, and subdivisions into previously undeveloped forest areas can have a significant impact on the extent, use, and management of the region’s tree cover and the ecosystem services it provides to society. Continuation of inefficient land-use practices will promote accelerated loss of forest land and associated environmental services. The growing disconnect between an urbanizing society and the natural resources that sustain its quality of life increases the difficulty of achieving sustainable human development.

Management Principles

The Northeastern Area operates on management principles that promote success. These principles are emphasized in our daily work and are reflected in our organization and interactions with our service delivery partners. We will adhere to the following three principles, to make progress toward the goals and objectives of this strategic plan:



Management Principle 1:

The Northeastern Area ensures that it has the right tools and right skills to continue to provide effective public service to partner organizations, through constant and consistent evaluation of its organizational capacity.



Management Principle 2:

The Northeastern Area enlists the diversity of the American population to strengthen program delivery, and to promote and sustain a conservation ethic.



Management Principle 3:

The Northeastern Area promotes public support for sustainably managed forests by building credibility and trust with its partners, cooperators, and stakeholders.

Management Principle 1:

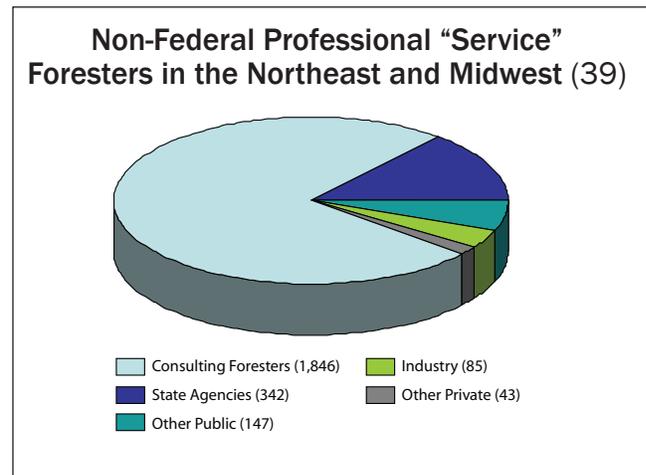
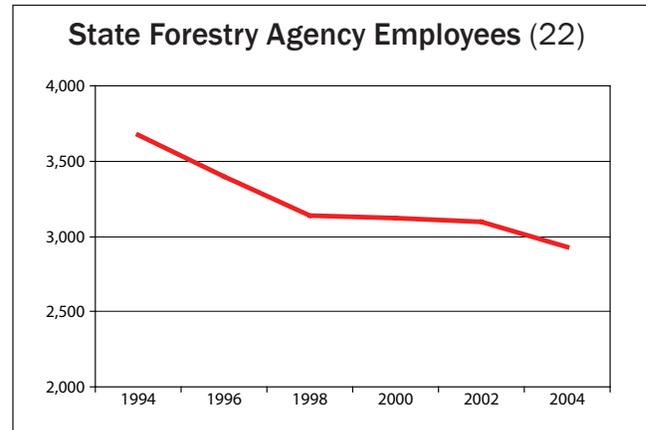
The Northeastern Area ensures that it has the right tools and right skills to continue to provide effective public service to partner organizations, through constant and consistent evaluation of its organizational capacity.

Current Situation

The Northeastern Area employs approximately 150 natural resource professionals and support staff to provide technical and financial assistance to partners in the 20 Northeastern and Midwestern States and the District of Columbia. An additional 20 employees deliver public service programs at Grey Towers National Historic Site. The effectiveness of NA's program delivery depends upon our capacity and the capacity of our partners to interact with constituents and meet their needs.

In an environment of flat or declining budgets, NA has maintained the capacity to deliver its programs by managing smarter. Although staffing was reduced by more than 10 percent during the previous planning period (2004-2007), advances in information technologies, efficiencies gained through process changes, and improved performance and work relationships have contributed to productivity. Some examples follow.

- NA's Web site—one of the most-visited within the Forest Service—has allowed us to continue to disseminate high-quality technology transfer publications at lower cost than printed publications. The Web site serves more than 170,000 unique visitors each month, with more than 3 million "hits" per month.
- Our publications are created to meet the needs of multiple audiences. For example, the *Red Pine Manager's Handbook* offers basic information that is relevant to suburban homeowners interested in planting a yard tree, yet it also provides detailed information for tree farmers looking to make wise investment decisions.



- Our growing use of "net meetings" allows us to meet virtually over the Internet and conduct business across our vast geographic territory with less travel expense and less environmental impact.

Our partners have also lost staffing in recent years. State forestry agencies across the Northeast and Midwest have lost about 20 percent of their workforce over the past decade.

When looking at the capacity to deliver land-owner assistance programs, it is important to consider all of our service delivery partners, both public and private. Considering service delivery to family forest owners who hold tracts of at least 10 acres (a tract size that might be considered ecologically intact and economically viable), there was one professional forester for every 744 family forest land owners in 2007. Family forest owners with tracts of at least 10 acres make up roughly 38 percent of all family forest owners, but they own 90 percent of all the family-owned forest land (6).

In 2007, private consulting foresters represented three-quarters of the service capacity across the Northeast and Midwest (39). The shift in service delivery capacity from the public to the private sector is occurring at a time of unprecedented demands and pressure on privately owned forests. The decline in natural resource management staff in the public sector requires even more effective and creative ways of working together, developing and sharing innovative solutions to public service needs, and collaborating more effectively with new service-delivery partners, to ensure sustainable forest management.

Applying Management Principle 1

We are committed to continuing to lead change in an effort to remain a relevant and vital member of the forestry community. For example, the current study of NA's organization will provide information and a platform on which informed decisions will be made about the skills and tools needed to increase effectiveness and cost efficiency of program delivery. We will continue to evaluate the skills, technical knowledge, and use of information technology within NA and share our findings with partners, to ensure we maintain a robust public-private partnership across the Northeast and Midwest.

NA leadership will continue to look for innovative ways to utilize the skills and perspective of all stakeholders to influence investment decisions in a collaborative manner. For example, we will continue to use and refine the *“Investing Where It Matters Most”* process to collectively make wise investment decisions that support our strategic priorities. Our goal is to make this effort more accessible and more widely used by our partners.

Management Strategies

E-gov:	Improve skills, technical knowledge and use of information technology among existing NA and partner workforce to counteract the negative effects of the recent trend of a loss of experienced personnel and funding
Human Capital:	Maintain a flexible, highly trained, technical workforce in accordance with NA's staffing plan
Performance Accountability:	Implement a performance accountability system that tiers from the national strategic plan to NA's performance budget and individual performance plans
Relationship Management:	Utilize the skills and knowledge of all stakeholders to influence investment decisions that maximize the effectiveness of scarce resources Lead State forestry agencies and other partners in advancements in analysis technologies, coordination, and development
Sustainable Operations:	Promote and encourage sustainable operations, both within NA and within partner and stakeholder agencies to reduce the negative environmental impact of day-to-day agency operations.
Homeland Security:	Increase capacity of State partners to use the Incident Command System and foster local incident management teams to better respond to regional, State, and national incidents.

Relationship to Strategic Objectives

Organizational capacity is key to accomplishing all of the objectives in this Strategic Plan. The achievement of the strategic goals and objectives will be possible through an effective delivery network of diverse entities that can adapt to a variety of public demands. The ability to reach a diverse and dynamic constituency of forest land owners and users is critical to the success of this plan. NA's capacity to provide the technical assistance and maintain its knowledge base is essential to help achieve the outcomes desired.

Cross-Cutting Programs

The organizational capacity of NA and our partners affects all program areas.

External Factors

Factors outside the influence of the Northeastern Area may affect the extent to which Management Principle 1 is applied. These factors include capabilities of State agencies, environmental investments of other Federal agencies, and priorities of universities and environmental groups with similar and complementary missions.

Management Principle 2:

The Northeastern Area enlists the diversity of the American population to strengthen program delivery, and to promote and sustain a conservation ethic.

Current Situation

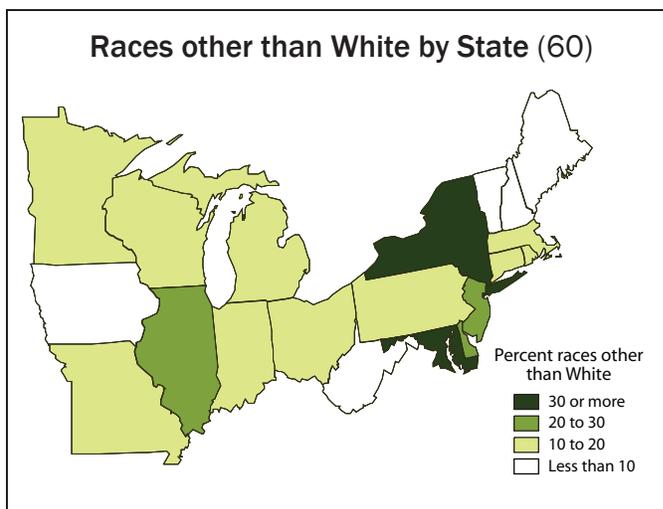
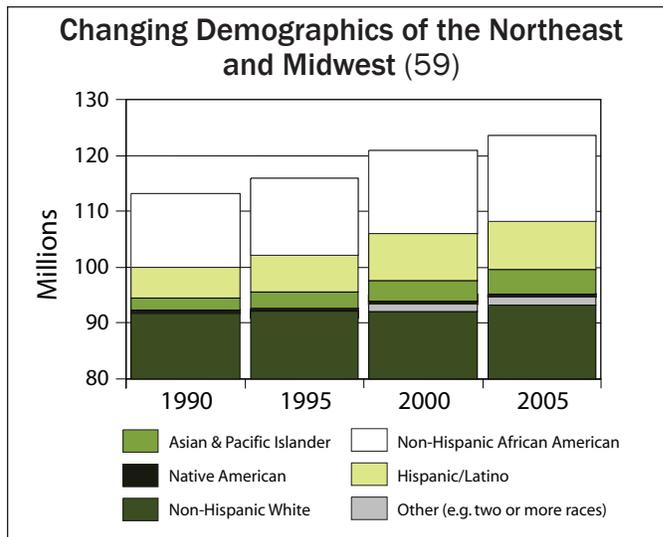
America is changing. The Census predicts that within 50 years, non-Hispanic Whites will no longer constitute the majority of the U.S. population. While change is not happening as rapidly across the Northeast and Midwest as in other areas of the country, dramatic changes are happening nonetheless. Since 1990, virtually *all* population growth in the region has been within so-called “minority” groups. The fastest-growing population segment has been people of Asian cultures, with a 94 percent increase since 1990. The largest increase has been among people of Spanish-speaking cultures.

In particular, the 2005 Census reported that racial and ethnic diversity within the metropolitan areas of the Northeast and Midwest are greater than in the region as a whole. By contrast, recent studies (2003) of privately owned forest land in the Northeast and Midwest reveal that more than 98 percent of all “family forest” owners are non-Hispanic Whites (6). Similarly, the Northeastern Area workforce, while reflecting gender parity, was still 95 percent non-Hispanic White in 2005 (52).

We are increasing our efforts to reach minority groups with our programs by partnering with organizations that can more effectively reach “nontraditional” publics, and by maintaining flexibility in our program delivery approaches. This outreach is essential as the diversity of the workforce and landowners changes. For example, working with the Illinois Division of Forestry, NA is now supporting the Chicago Wilderness Coalition to provide urban and

community forestry programs to the 9 million citizens living in the great Chicago area, most of whom are minorities.

We are also translating selected NA publications into Spanish, in recognition that this fairly simple strategy will help make our technology transfer efforts more relevant to this important segment of the public.



Another example of flexible program delivery involves our outreach to the Hmong community of northern Minnesota. Working with the Minnesota Department of Natural Resources, NA supported hiring a Hmong liaison staff person to help explain forestry and related natural resource concerns and opportunities to a growing and important segment of Minnesota's wood and natural resources workforce.

“A Senegalese poet said, ‘In the end we will conserve only what we love. We love only what we understand and we will understand only what we are taught. We must learn about other cultures in order to understand, in order to love and in order to conserve our common world heritage.’”

Yo-Yo Ma, Cellist, White House Conference on Culture and Diplomacy

Applying Management Principle 2

The Northeastern Area is committed to an organizational culture where diversity is seamlessly integrated throughout its program

delivery. A diversified NA workforce aligns with the public we serve and helps to maintain our relevancy. Towards this end, we will continue our efforts to attract, develop, and retain the best talent across all demographics. We will also continue to focus on creating an inclusive work environment of openness, mutual respect and trust where everyone contributes to their maximum potential. For example, using our student employment authorities, NA recently hired a college student who is deaf, to assist in GIS-related work. While providing meaningful employment to an underserved class of citizens, our hearing workforce also benefits by gaining familiarity with a culture most have never experienced. We will continue to focus on engaging new audiences by taking our existing programs into new areas, establishing new associations, and forming new community partnerships. NA will seek to deliver programs to a wider variety of audiences by building relationships with new, more diverse constituencies and stakeholder groups.

Management Strategies

Communicate expectations	Educate employees about acceptable workplace practices and options available to resolve concerns and complaints; raise awareness of cultural diversity
Promote equal employment opportunity	Monitor existing hiring and promotion processes, evaluate proposed changes or new personnel processes, seek diverse input
Enforce regulations	Demonstrate compliance with Departmental Regulation 4300-010, Civil Rights Accountability Policy and Procedures
Ensure compliance	Conduct Civil Rights (Title VI) reviews to ensure compliance of federally assisted and conducted programs with Departmental Regulations and other guidance.
Develop a diversity plan (updated annually)	In cooperation with key partners and stakeholders, outline an approach to broaden the participation in federally assisted and conducted programs that reflects the diversity of the communities served by NA.
Resolve complaints	Ensure prompt intervention and resolution whenever an assertion of discriminatory behavior is reported to management

Relationship to Strategic Objectives

Diversity concepts are integrated into all programs and initiatives of the Northeastern Area. The productivity and effectiveness of our workforce depends upon mutual trust and respect. Therefore, all NA employees are held accountable for their performance under this management principle.

Cross-Cutting Programs

The Northeastern Area works extensively with diverse communities and groups to gain their involvement in helping to manage the resource. This is accomplished by engaging the States and other key partners through program planning, to identify underrepresented groups and stakeholders. Approaches are outlined to broaden program delivery to reflect the diversity of the communities served by NA.

Diversity is further fostered through college-sponsored career fairs to increase awareness of the Forest Service as an employer in the Northeast. Extensive work is accomplished through relationships with State offices of the Division of Rehabilitation Services to further outreach to individuals with targeted disabilities.

External Factors

NA's workforce is a microcosm of our larger society, in which both positive and negative forces are at work to unite or polarize our diverse culture. While we can demand and enforce behavioral standards, the same cannot be said for the attitudes and beliefs held by individuals who make up our workforce and stakeholder network.

Management Principle 3:

The Northeastern Area promotes public support for sustainably managed forests by building credibility and trust with its partners, cooperators, and stakeholders.

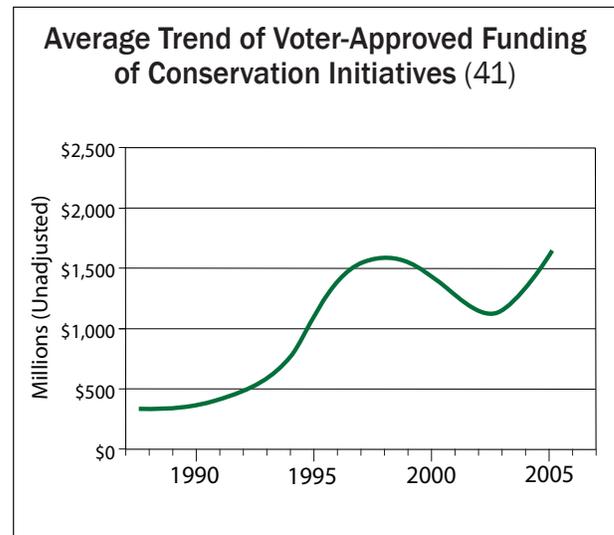
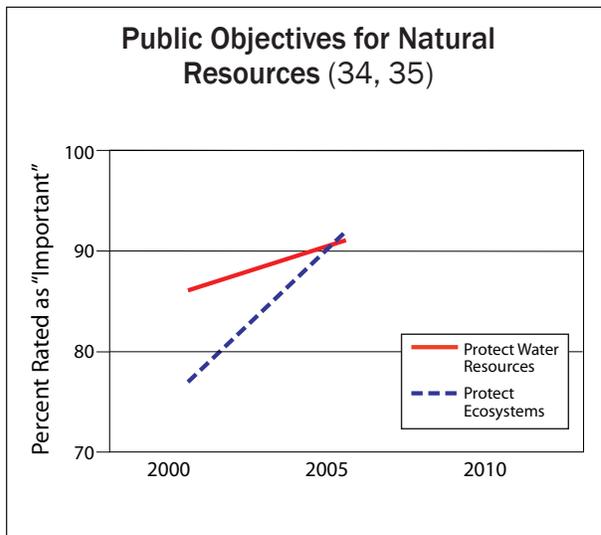
Current Situation

Since State and Private Forestry's role is to *influence*, rather than regulate or require, sustainable forest management on privately owned forest land, it is important that the public be well-informed and supportive of our mission. Towards that end, the Northeastern Area's educational and public service communications help to build understanding of the public benefits that citizens and their communities derive from the sustainable management of privately owned forest land.

A comparison of the RPA's Values, Objectives, Beliefs and Attitudes surveys conducted in 2000 and 2005 reveals an increasingly positive attitude towards protecting watersheds and forest ecosystems in the Northeast and Midwest. In fact, the percentage of NA residents who now rate environmental

protection as "important" stands at more than 90 percent (34, 35).

Also, citizens in the Northeast and Midwest have a highly developed sense of self-interest when it comes to the environment. When they perceive that conservation activities benefit *them* as individuals, and make *their* communities better places in which to live, they are more openly supportive. Some suggest the best indication of the public's attitude toward the environment is expressed support for community-based funding initiatives. Since 1988, the Trust for Public Land has documented a growing trend in community-level support for conservation and open-space initiatives. Voters across the Northeast and Midwest have authorized as much as \$2 billion per year in such tax-funded projects (41).



Relationship to Strategic Objectives

An informed and supportive public is key to all of the strategic objectives in this plan. All objectives described in this plan hinge on our ability to change or influence human behavior in directions supporting natural resource conservation and sustainable forest management. Although it is not a rapid process, effective communication through several channels, about issues relevant to the public, has proven to be one of the best methods for changing behavior over the long term.

Cross-Cutting Programs

Progress toward this objective depends upon effective coordination within our own organization as well as with other Federal and State agencies, and private sector partners.

Our most successful communication and information activities are those in which we partner with other organizations. In fact, in media relations, working directly with or on behalf of another agency or partner has attracted more coverage and further raised public awareness of an issue.

External Factors

Factors outside the control of the Northeastern Area that may affect progress toward this objective include competition in the communications markets, where a large number of environmentally focused messages compete for attention (for example, global warming, and energy dependence), as well as competition for media interest during a time of war and threats against national security.

Appendix A

Cross Reference to USDA Forest Service Strategic Plan, FY 2007-2012

Northeastern Area 2008-2012 Plan	USDA Forest Service 2007-2012 Plan
Goal 1 – Promote Sustainable Forest Management	
A. Conserve the biological diversity of highpriority forest land at risk of conversion and fragmentation.	3.1. Protect forests and grasslands from conversion to other uses 3.2. Help private landowners and communities maintain and manage their land as sustainable forests and grasslands
B. Sustain the productive capacity of private forest land.	2.1. Provide a reliable supply of forest products
C. Maintain the health and vitality of forest ecosystems at risk from potentially damaging agents.	1.4. Reduce the adverse impacts from invasive and native species, pests, and diseases
D. Protect and enhance the health of watersheds.	1.5. Restore and maintain healthy watersheds and diverse habitats
Goal 2 – Enhance the Capacity of Forests to Provide Public Benefits	
A. Promote and encourage the viability of forest-based industries in the Northeastern Area.	2.1. Provide a reliable supply of forest products 2.4. Promote market-based conservation and stewardship of ecosystem services 7.1. Increase the use of applications and tools ...
B. Help the Northeast and Midwest to meet their need for renewable energy, to reduce greenhouse gases, and to conserve energy.	2.3. Help meet energy resource needs
C. Help communities at risk from wildland fire protect lives, property, and natural resources.	1.1. Reduce the risk to communities and natural resources from wildfire 1.3. Build community capacity to suppress and reduce losses from wildfires
D. Maintain and enhance the benefits that communities within metropolitan areas derive from their forests and trees.	6.1. Promote conservation education...through partnerships with groups that benefit and educate urban populations 6.2. Improve management of urban and community forests to provide a wide range of public benefits
Management Principles	
1. The Northeastern Area ensures that it has the right tools and right skills to continue to provide effective public service to partner organizations, through constant and consistent evaluation of its organizational capacity.	5.1. Improve accountability through effective ... planning and efficient use of data and technology in resource management 7.1. Increase the use of applications and tools ... Business Foundation: Human Resources, Financial Performance, Electronic Government, Budget and Performance Integration
2. The Northeastern Area enlists the diversity of the American population to strengthen our program delivery, and to promote and a sustain a conservation ethic.	Business Foundation: Civil Rights
3. The Northeastern Area promotes public support for sustainably managed forests by building credibility and trust with its partners, cooperators, and stakeholders.	6.1. Promote conservation education...through partnerships with groups that benefit and educate urban populations Business Foundation: Electronic Government

Appendix B

Montreal Process Criteria and Base Indicators of Forest Sustainability for the Northeast and Midwest*

The indicators adopted by the Northeastern Area Association of State Foresters and NA span the Montreal Process criteria. They serve as a foundation for regional strategic planning and as a base set for State forest resource assessment and planning.

<p>Criterion 1: Conservation of Biological Diversity</p> <ol style="list-style-type: none"> 1. Area of total land, forest land, and reserved forest land 2. Forest type, size class, age class, and successional stage 3. Extent of forest land conversion, fragmentation, and parcelization 4. Status of forest/woodland communities and associated species of concern
<p>Criterion 2: Maintenance of Productive Capacity of Forest Ecosystems</p> <ol style="list-style-type: none"> 5. Area of timberland 6. Annual removal of merchantable wood volume compared to net growth
<p>Criterion 3: Maintenance of Forest Ecosystem Health and Vitality</p> <ol style="list-style-type: none"> 7. Area of forest land affected by potentially damaging agents
<p>Criterion 4: Conservation and Maintenance of Soil and Water Resources</p> <ol style="list-style-type: none"> 8. Soil quality on forested land 9. Area of forest land adjacent to surface water and forested land by watershed 10. Water quality in forested areas
<p>Criterion 5: Maintenance of Forest Contribution to Global Carbon Cycles</p> <ol style="list-style-type: none"> 11. Forest ecosystem biomass and forest carbon pools
<p>Criterion 6: Maintenance and Enhancement of Long-Term Multiple Socioeconomic Benefits to Meet the Needs of Societies</p> <ol style="list-style-type: none"> 12. Wood and wood products production, consumption, and trade 13. Outdoor recreational participation and facilities 14. Investments in forest health, management, research, and wood processing 15. Forest ownership, land use, and specially designated areas 16. Employment and wages in forest-related sectors
<p>Criterion 7: Legal, Institutional, and Economic Framework for Forest Conservation and Sustainable Management</p> <ol style="list-style-type: none"> 17. Forest management standards/guidelines 18. Forest-related planning, assessment, policy, and law

* No priority or order is implied in the numeric listing of the criteria and indicators.

Appendix C

NA's Strategic Objectives by NAASF-Adopted Indicator

Strategic Objective or Management Principle	NAASF-Adopted Indicator
Goal 1 – Promote Sustainable Forest Management	
A. Conserve the biological diversity of high priority forest land at risk of conversion and fragmentation.	1. Area of total land, forest land, and reserved forest land 3. Extent of forest land conversion, fragmentation, and parcelization 15. Forest ownership, land use, and specially designated areas
B. Sustain the productive capacity of private forest land.	5. Area of timberland 6. Annual removal of merchantable wood volume compared with net growth
C. Maintain the health and vitality of forest ecosystems at risk from potentially damaging agents.	7. Area of forest land affected by potentially damaging agents
D. Protect and enhance the health of watersheds.	9. Area of forest land adjacent to surface water, and forest land by watershed 10. Water quality in forested areas
Goal 2 – Enhance the Capacity of Forests to Provide Public Benefits	
A. Promote and encourage the viability of forest-based industries.	12. Wood and wood products production, consumption, and trade (bioenergy metric) 14. Investments in forest health, management, research, and wood processing 16. Employment and wages in forest-related sectors (private sector metric)
B. Help the Northeast and Midwest to meet their need for renewable energy, to reduce greenhouse gases, and to conserve energy.	11. Forest ecosystem biomass and forest carbon pools 12. Wood and wood products production, consumption, and trade (bioenergy metric)
C. Help communities at risk from wildland fire protect lives, property, and natural resources.	7. Area and percent of forest land affected by potentially damaging agents (wildfire metric)
D. Maintain and enhance the benefits that communities within metropolitan areas derive from their forests and trees.	1. Area of total land, forest land, and reserved forest land (urban forest metric)
Management Principles	
1. The Northeastern Area ensures that it has the right tools and right skills to continue to provide effective public service to partner organizations through constant and consistent evaluation of its organizational capacity.	16. Employment and wages in forest-related sectors (U.S. Forest Service employees metric)
2. The Northeastern Area enlists the diversity of the American population to strengthen program delivery, and to promote and sustain a conservation ethic.	
3. The Northeastern Area promotes public support for sustainably managed forests by building credibility and trust with its partners, cooperators, and stakeholders.	

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Glossary

Terms are defined as they pertain to this strategic plan.

APCW—Acronym for ability to produce clean water, which describes an index of water quality and watershed integrity based on six attributes: forest land, agricultural land, road density, riparian forest cover, soil erodibility, and housing density (4).

APHIS—Animal and Plant Health Inspection Service

Best Management Practices (BMP's)—State or local regulatory or nonregulatory guidelines for proper application of forestry operations, including protecting water quality as required by Federal statutes, including the Clean Water Act and Water Pollution Control Act. BMP's are primarily designed to prevent soil erosion and water pollution, and to protect certain wildlife habitat values in riparian and wetland areas (28).

conservation easement—An easement that grants a party certain rights to the land someone owns, such as development rights or subdivision rights; a legal agreement that permanently limits the uses of a parcel of land in order to protect its conservation or recreation values (7, 28).

criteria and indicators—Criteria are categories of conditions or processes by which sustainable forest management may be assessed. Each criterion is characterized by a set of related indicators, which are monitored periodically to assess change.

e-Government—Using improved Internet-based technology to make it easy for citizens and businesses to interact with the government, save taxpayer dollars, and streamline citizen-to-government communications (11).

FIA—Forest Inventory and Analysis

forest land—Land at least 16.7 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use. The minimum area for classification of forest land is 1 acre. Roadside, streamside, and shelterbelt strips of timber must have a crown width of at least 120 feet to qualify as forest land. Unimproved roads and trails, streams, or other bodies of water or clearings in forest areas shall be classed as forest if less than 120 feet wide (36).

fragmentation—The process by which larger, contiguous forest lands are broken into smaller, more isolated fragments or islands, surrounded by human-modified environments that are converted to agriculture and urban land uses (17).

FSC—Forest Stewardship Council

green infrastructure—An interconnected network of green space that conserves natural ecosystem values and functions and provides associated benefits to human populations. (5)

green space—A protected area of land whose primary purpose is to remain open or undeveloped; term is used interchangeably with “open space” (8).

ICS—Incident Command System

invasive species—An alien species whose introduction does or is likely to cause economic or environmental harm, or harm to human health. An alien species means, with respect to a particular ecosystem, any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem (12).

management strategy—Describes how an organization intends to achieve its strategic objectives. Management strategies incorporate the mix of available programmatic activities best suited to a particular objective, and provide the foundation for the organization's annual performance budget.

NRCS—Natural Resources Conservation Service, U.S. Department of Agriculture

non-industrial private forest land (NIPF)—An ownership class of private forest lands where the owner does not operate wood-using production or manufacturing plants (36).

parcelization—Subdividing ownership of a large forested tract into several smaller ownerships; shift from a few landowners with large holdings to many landowners with smaller holdings (10, 19).

RC&D—Resource Conservation and Development Council

riparian—Relating to or living or located on the bank of a natural watercourse (as a river) or sometimes of a lake or a tidewater (20).

RPA—Forest and Rangeland Renewable Resources Planning Act of 1974

SFI—Sustainable Forestry Initiative

species—A class of individuals having common attributes and designated by a common name; a logical division of a genus or more comprehensive class (20).

SRWC—short rotation woody crops

strategic goal—Defines in broad categories how an agency will carry out its mission. Strategic goals are not necessarily attainable nor directly measurable, but taken together, express the ultimate purpose of the organization. They may be of a programmatic, policy, or management nature.

strategic objective—Is aligned with a strategic goal and is used to help assess whether progress toward the goal is being achieved. A strategic objective usually describes a specific element or condition essential to the ultimate achievement of a strategic goal. Periodic science-based assessments are typically used to indicate whether the objective is being met over time (see criteria and indicators).

sustainable forest management—The forest component of sustainable development, which is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (66). The Montreal Process Criteria and Indicators, as adopted by the NAASF and NA (Appendix B), taken together also provide an implicit definition of what is meant by sustainable forest management at the Area-wide level.

SWCD—Soil and Water Conservation District

third-party certification—A market-based instrument designed to document and reward specific forest management practices, and to assure consumers of forest products that their purchase comes from a forest whose management meets certain standards (65).

timberland—Forest land that is producing, or is capable of producing, in excess of 20 cubic feet per acre per year of industrial roundwood products under natural conditions, is not withdrawn from timber utilization by statute or administrative regulation, and is not associated with urban or rural development (36).

urban forest—includes trees, forests, and natural systems in and around cities, suburbs, and towns (23)

WERC—Wood Education and Resource Center

wildland-urban interface (WUI)—The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

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NORTHEASTERN AREA STATE AND PRIVATE FORESTRY

Strategic Goals, Objectives, and Management Principles

Strategic Goals and Objectives

Goal 1. Promote Sustainable Forest Management

Objective 1.A: Conserve the biological diversity of important forest land at risk of conversion and fragmentation.

Objective 1.B: Sustain the productive capacity of privately owned forest land.

Objective 1.C: Maintain the health and vitality of forest ecosystems at risk from potentially damaging agents.

Objective 1.D: Protect and enhance the health of watersheds.

Goal 2. Enhance the Capacity of Forests to Provide Public Benefits

Objective 2.A: Promote and encourage the viability of forest-based industries.

Objective 2.B: Help the Northeast and Midwest to meet their needs for renewable energy, to reduce greenhouse gases, and to conserve energy.

Objective 2.C: Help communities at risk from wildland fire protect lives, property, and natural resources.

Objective 2.D: Maintain and enhance the benefits that communities within metropolitan areas derive from their forests and trees.

Management Principles

Management Principle 1: The Northeastern Area ensures that it has the right tools and right skills to continue to provide effective public service to partner organizations, through constant and consistent evaluation of its organizational capacity.

Management Principle 2: The Northeastern Area enlists the diversity of the American population to strengthen program delivery, and to promote and sustain a conservation ethic.

Management Principle 3: The Northeastern Area promotes public support for sustainably managed forests by building credibility and trust with its partners, cooperators, and stakeholders.

