

Forests, Forestry and the Forest Products Industry:

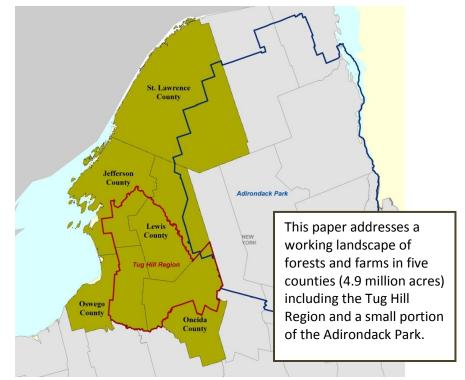
Opportunities for Creative Investment

October 2012

Over the last several decades, as farmland converts to forests and pulp and paper mills have shut down, an abundance of biomass is growing and becoming available at a time when emerging markets in the forest industry will demand wood for the production of heat, energy and bioproducts. The Regional Economic Development Councils are urged to consider these markets and their potential for economic development.

INTRODUCTION

New York State's forest resource has long been an important contributor to the State's economy. Creative investments and changes in policies have the potential to create even more economic growth in today's forest products markets. Although long-time mainstays of the forest economy (i.e. pulp and paper mills, furniture manufacturers) have left the area or have significantly changed their operational model, forests continue to be a



defining asset providing timber resources for the forest products industry, recreational opportunities (hunting, hiking, skiing), clean air, value-added products (maple syrup production) and watersheds for clean drinking water. Our renewable wood resource is a critical component of an emerging forest economy, driven mainly by sustaining the current primary wood products industry, clean and sustainable energy and heating, and biochemical needs.

This paper is meant to show where the industry has been, show what's stayed the same in the industry to our advantage, threats to the emerging forest economy, the opportunities that have presented themselves presently in the forest industry, and offer suggested actions that can be taken to make investments that will pay off for the State in the long-term.

BACKGROUND

Past studies have shown that forests have the potential to make a greater contribution to the economic, social, and natural resource well-being of the State and its various regions. The forest industry possesses four general advantages that have not changed for decades:

- 1. Trees are a renewable resource and their growth exceeds removals by a ratio of 2 to 1¹
- 2. There is a skilled workforce available to harvest the resource²
- 3. The wood resource is close to large markets³
- 4. Losses of forest land have been more than offset by gains in forest land (although gains in total forest have slowed)⁴

¹ North East *State* Forest Association, <u>The Economic Importance and Wood Flows from New York's Forests, 2007</u>, NEFA, August 2007.

² The Black River – St. Lawrence Resource Conservation and Development Council, <u>Northern New York Forest Resources and Industry</u> (Forestry Committee), 1990.

³ Same as footnotes 1 and 2 above

⁴ US Department of Agriculture, United States Forest Service & Northern Research Station, <u>New York's Forests 2007</u>, US Forest Service, 2012.

WHAT WE HAVE NOW

The Statewide Resource and Ownership Patterns:

While forests cover 18.95 million acres or 63% of the State, most is owned in small parcels by over half a million private landowners. 4.6 million acres, or 24%, of the State's forest land is owned publicly by federal, state and local governments (does not include easements). 14.3 million acres or 76% of the State's forestland is owned by 687,000 private individuals and enterprises. The largest ownership category of private owners is family forest owners (614,000 individuals, farmers and small family corporations and partnerships), who own 11,252,000 forested acres statewide.⁵ 89% of family forest owners hold 50 acres of land or less.⁶

The largest and most contiguous forested regions in New York State include the Adirondacks, Catskills, Tug Hill and Southern Tier.

Changing Dynamics in Land Ownership in the Five County Area:

Over the last two decades, industrial forest ownership has shifted away from the vertically integrated landowner (e.g. Lyons Falls Pulp & Paper, Champion and International Paper that owned and managed properties for multiple decades to feed a centralized manufacturing plants) to the Timber Investment Management Organization/Real Estate Investment Trust (TIMO/REIT) model, where an outside investor is looking for a stable, 6% return on investment by holding on to properties for 5 to 7 years on average. This can easily be seen in the Lyons Falls Pulp and Paper example, where ownership has shifted from Lyons Falls Pulp and Paper, to John Hancock Mutual Life Insurance Company in 1996, to Great Eastern Timber Company in 2000, to GMO Forestry Fund 3, LP in 2002, and to Corrigan TLP, LLC in 2007. Most recently, the last two vertically integrated landowners in the five county area sold their acreage,

with Harden Furniture in Oneida County selling its 9,500 acres to Marcy Timber, a TIMO headquartered in Georgia and Gutchess Lumber/Farm selling their 27,000 acres on Tug Hill to Salmon River Timberlands, LLC in 2012.

Forests are the dominant land type in the five county area covering just over 65% of the acreage in the five county area. This is a tremendous forest resource in the five county area and it is mostly

The City of Rome's Water is Protected by Forests

The City's water supply originates over 20 miles north of the City, in the Tug Hill area of Lewis County. The Tug Hill Region is one of the remote and most sparsely populated areas of the state. One hundred square miles of the 155 square mile watershed of the East Branch of the Fish Creek flows into Tagasoke Reservoir, a 1.4 billion-gallon impoundment. As the creek flows from this reservoir it converges with the flow from an additional 55 square miles of watershed to Kessinger Dam which is eight miles downstream. Here, the water is diverted into a rock tunnel, approximately 1 mile long. Water then flows from the tunnel into a 48-inch reinforced concrete cylinder pipe, and on to the filtration plant.

⁵ New York State Department of Environmental Conservation, <u>Forest Resource Assessment & Strategy 2010-1015</u>, DEC, 2010.

⁶ US Department of Agriculture, US Forest Service & Northern Research Station, New York's Forests 2007, US Forest Service, 2012.

⁷ Miles, P.D. Wed Aug 29 09:58:20 CDT 2012. Forest Inventory EVALIDator web-application version 1.5.1.2. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. Available only on internet: http://apps.fs.fed.us/Evalidator/tmattribute.jsp.

privately owned⁸, as shown in the chart below. Additional studies could be conducted in the five county area to show how much of that resource is available for harvesting.

100% 90% 80% 70% 60% 50% Privately Owned 40% ■ Publicly Owned 30% 20% 10% 0% Jefferson Lewis County Oneida County Oswego County St. Lawrence County County

Percentage of Publicly vs Privately Owned Forestland in Each County

Jobs:

Working forests represent jobs for New Yorkers, but it is important to recognize that there is room to grow our utilization of raw wood materials originating from forests in New York State. "Each 1,000 acres of forest land in New York supports 3.0 forest-based manufacturing, forestry and logging jobs and .8 forest-related tourism and recreation jobs." Statewide, "the forest-based manufacturing industry and forestry and logging provides employment for 57,202 people and generates a payroll of over \$2.1 billion." Some sub-sectors that "produce wood products are likely to use raw material sourced from New York's forests, however, it is unlikely that this percentage can be determined without intensive study. A best guess would be approximately 50%." It is estimated that just fewer than 24,000 jobs in New York State rely on wood raw material from New York's forests.

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⁸ Miles, P.D. Wed Aug 29 09:58:20 CDT 2012. Forest Inventory EVALIDator web-application version 1.5.1.2. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. Available only on internet: http://apps.fs.fed.us/Evalidator/tmattribute.jsp.

⁹ North East *State* Foresters Association, <u>The Economic Importance and Wood Flows from New York's Forests</u>, 2007, NEFA, published in August, 2007 using 2005 or better data.

¹⁰ New York State Department of Environmental Conservation, <u>Forest Resource Assessment & Strategy 2010-1015</u>, DEC, 2010.

¹¹ New York State Department of Environmental Conservation, <u>Forest Resource Assessment & Strategy 2010-1015</u>, DEC. 2010.

¹² New York State Department of Environmental Conservation, <u>Forest Resource Assessment & Strategy 2010-1015</u>, DEC, 2010.

Primary and Secondary Wood Using Industry:

According to the March 2009 Directory of Primary Wood-Using Industry in New York State, there are 38 "primary" wood products companies located in the 5 county area. Examples of primary wood-using industries include Baillie Lumber Company, Harden Furniture, and D&D Lumber. Also, it is important to note that there are biomass power production facilities operating and facilities using woody biomass for heat located in the 5 county area. Examples include Lyonsdale ReEnergy, Curran Renewable Energy, and South Lewis School. In addition, there are countless very small mills producing lumber for local consumption only. These are in the form of portable sawmills that start or stop production frequently and Amish farm mills.

The Directory of Secondary Wood-Using Industry in New York State lists 37 "secondary" wood products companies located in the 5 county area. These wood products include frames, bowling pins, furniture, dimension stock, millwork pallets and boxes. Examples of secondary wood-using industries include AMF Bowling Products, Harden Furniture, Curtis Furniture Company, Timeless Frames, and Fish Creek Waterfowl.

Cornell Cooperative Extension in Lewis County reports that in 2007, there were 280 maple producers in the five county area that produced a yield of 57,623 gallons of syrup. At an estimate of \$41.00 per gallon, the five county area generated \$2,362,543 in syrup sales. There were, overall, more producers in 2007 than in 2000 (195), but in 2000 they produces a slightly higher yield of 57,983 gallons. Season to season the maple syrup industry is variable with weather and market conditions.

Research in St. Lawrence, Lewis and Jefferson Counties suggests that the maple industry has tremendous potential to grow if tap utilization is increased. Current maple industry revenues in the three counties alone were more than \$2.4 million annually in 2012. According to the 2010 NASS Census, in St. Lawrence, Lewis and Jefferson Counties, possible annual revenue could reach \$ \$10,462,153 if utilization of taps increased to a rate of 3.2%. 13

In 2012, Moser's Maple Products from Beaver Falls, New York, and a member of the Lewis County Maple Producers Association, won Best In Show for their light syrup at the World Maple Festival in St. Johnsbury, Vermont. Best In Show is the top honor awarded at this festival.

Tertiary Value of the Forest Industry:

Forests provide other benefits to the area's economy than the primary and secondary forestry industry numbers quoted above. For example, forests protect water, and thus provide water supply protection, by removing pollutants and preventing soil erosion, provide habitat for wildlife, and provide carbon sequestration. Statewide, "forest-based recreation and tourism provides employment for over 14,600 and generates payrolls of \$300 million." Tug Hill forests provide a haven for snowmobilers, residents and visitors alike enjoy cross-country and downhill skiing, snowshoeing, hiking, and mountain biking in the region. Statewide, during the 2010-2011 winter season, total revenue (direct spending) from snowmobiling alone totaled over \$428 million dollars.¹⁵

¹³ Michael Farrell, Growth Potential in the Northern NY Maple Industry, Cornell Maple Program, September 2010.

¹⁴ North East State Foresters Association, The Economic Importance and Wood Flows from New York's Forests, 2007, NEFA, published in August, 2007 using 2005 or better data.

15 New York State Snowmobile Association, 2011-12 Snowmobile Owners Survey, The Research Foundation for

the State University of New York, 2012.

In addition, recreation provides an economic boost when goods and services are purchased in the region. Forests provide habitat for wildlife and open and scenic areas for those seeking quiet places to relax and enjoy nature.

OPPORTUNITIES

The forest industry of New York is an industry of potential for increased opportunity for the entire State of New York, including the Tug Hill and Adirondack Regions. The Wood Products Development Council and Regional Economic Development Councils have made the forest industry of New York priorities in each of their missions and strategies. <u>In addition, the five county area's proximity to Canada provides opportunities for trade of goods.</u>

Wood Products Development Council:

New York State sees the value of the forests to our economic growth in the many studies produced over the years and in the appointment of the Wood Products Development Council. Authorized in 2009 by the NYS Legislature and housed by the New York State Department of Agriculture and Markets, the Wood Products Development Council is a public-private partnership charged to increase the economic contribution of forestry and the manufacture of wood products in the State. The Council's authorizing legislation charges the group to:

"...work with wood-using manufacturers to increase the economic contributions and

employment opportunities related to the practice of forestry and manufacture of wood products in New York State. The council shall give priority to increasing private investment in working forests; maintaining access to working and family forests; coordinating policy and permitting issues with state agencies, academia and the private sector; working to improve public understanding of and appreciation for forestry and forest products; and increasing export and market opportunities for New York forest products."¹⁶

"More jobs from the same tree."

Pat Curran, President Seaway Timber Harvesting Massena, NY

Regional Economic Development Councils:

Two years ago, Governor Cuomo created 10 Regional Economic Development Councils (REDCs), comprising public-private partnerships made up of local experts and stakeholders from business, academia, local government, and non-governmental organizations. Initially tasked with developing long-term strategic plans for economic growth for their regions, the REDCs are now competing for funding to implement the strategies outlined in their plans . REDCs in the middle section of New York, outlined in orange on the map below (covering Southern Tier, Central New York, Mohawk Valley and the North Country), all prioritize the Forest Products sector in their Strategic Plans.

¹⁶ Wood Products Development Council website: http://newyorkwood.org/about/



Canadian Connection

St. Lawrence and Jefferson Counties share much, if not all of their borders with the St. Lawrence Seaway and the entire five county area is within easy driving access to Canada. Raw materials and value added products frequently move across our border. 25% of New York's wood production was exported in 2008. Canada is the largest importer of New York's industrial timber harvest, importing 61% of New York's exported production.¹⁷

RECOMMENDATIONS

For various reasons, it is not likely that New York will be the chosen location for the development of new, traditional low-grade timber products markets like pulp and paper mills, so new alternative energy markets will be necessary to utilize the vast and growing volumes of low-grade timber in the forests that are needed to be harvested to improve forest productivity and health. Much of the region and other areas of the state are well positioned to utilize wood fuel due to the high level of heating oil used, especially in northern New York. The future ability of the region's forest resource to support the current or expanded wood products industry will depend on public and private investment, changes in public policies, and the buy-in of forest landowners to the concept of proper stewardship of the forest for forest products. It is important to note is that the current economic development model in New York requires working through REDCs (the five county area falls within three REDCs: Central New York, Mohawk Valley, and North Country). This makes it difficult for small, dispersed investment opportunities to compete with larger, centralized opportunities with larger job numbers attached. Many small businesses contribute to the fabric of the forest products industry and these tend to fly under the radar of REDCs. We recommend that the "Chairman's Committee" in the REDC model be utilized to look at the forest industry as one that cuts across all REDC's. Additionally, the change in the way state funds are competed for and the oversubscription of the Environmental Protection Fund makes securing large blocks of the

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¹⁷ North East *State* Foresters Association, <u>The Economic Importance and Wood Flows from New York's Forests</u>, 2007, NEFA, published in August, 2007 using 2005 or better data.

forest resources through conservation easements and limited fee acquisitions in a timely manner difficult.

1. Retooling old Forest Industrial Sites

Former mill sites are remnants of a bygone era and deserve attention and financial incentives for remediation and redevelopment. In places such as Lyons Falls, Deferiet, Newton Falls, recognizing that these areas will most likely never again be paper mills, there are efforts to find new and innovative uses for the remaining sites. Lyons Falls site redevelopment is a priority project of the North Country REDC. Newton Falls and its connecting railroad are also a priority project of the North Country REDC

2. Making the remaining Manufacturers more "lean"

Wood products manufacturers need to look at ways to reduce their costs by becoming more efficient and profitable. Harden Furniture, for example, will invest in equipment and software upgrades to shorten production times, increase their ability to customize existing designs and reduce operating costs. Timeless Frames, as another example, has been successful because of their efficiency in customizing their products.

3. Providing New/Expanding Markets for Wood

- a. Energy: There are 3 wood using electricity producers that are already or have the potential to be operating in the 5 county area: Griffiss in Rome, ReEnergy in Lyonsdale, and ReEnergy Black River, which is retrofitting a former coal plant to a wood chips energy plant on Fort Drum.
- b. Heat: In the North Country, where oil represents a majority of commercial, industrial and residential heating fuels, there's a potential for retrofitting to wood or biomass boiler systems. For example, four new biomass systems have come online. Also, the North County REDC and Mohawk Valley REDC have funded biomass heating systems at ReEnergy at Fort Drum and Griffis in Rome, NY. The South Lewis School is another example of a retrofit project.
- c. Biochemicals: The SUNY College of Environmental Science and Forestry is leading the development of technology to extract sugar-rich materials from wood to produce biofuels such as biobutanol and biodiesel and bioderived chemical such as acetic acid and lactic acid. This work should be transferred as soon as possible from academics to production.
- d. Transfer of Technology: The New York State Pollution Prevention Institute (NYSP2I) is a statewide research and technology transfer center funded by the New York State Department of Environmental Conservation. RIT and its partner universities, Rensselaer Polytechnic Institute, Clarkson University, and the University of Buffalo, along with the state's ten regional technology development centers (RTDC) together comprise the NYSP2I. The vision for the NYSP2I is to foster the transformation and development of sustainable businesses and organizations in New York State in a collaborative program committed to making the State a leader in environmental stewardship. http://www.rit.edu/affiliate/nysp2i/

4. Recreation and Tourism

Because of the interrelationships between people and places they recreate, an investment in recreation and tourism gives a boost to the forest economy, as forests will continue to be forests so long as people demand to recreate in them. Recreational connections between

state and private land need to be improved and access to easement lands needs to be improved and maintained.

Since 1989, there have been guidelines and standards for the classification and maintenance of low volume roads in rural areas, but they have never been authorized under state legislation. Low volume roads legislation will keep municipal roads available for recreational access by allowing rural municipalities to designate and maintain them accordingly. Senate Bill S. 3641 A and Assembly Bill A. 6325 are the latest attempt to codify low volume roads legislation in New York State Law.

Also, revenue streams for forest landowners from the sale of recreational easements and leases (e.g. hunting camps) should be provided.

5. Greenhouse Gas Sequestration – Climate Change

- a. The Regional Greenhouse Gas Initiative (RGGI) is a cooperative effort among nine states Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island and Vermont to reduce greenhouse gas emissions. Working through a carbon budget trading program, RGGI is the first mandatory, market-based carbon emissions reduction program in the United States. Each state's Carbon Budget Trading Program limits emissions of Carbon from electric power plants, issues Carbon allowances and establishes participation in regional Carbon allowance auctions. New York State, through the New York State Energy Research Development Authority (NYSERDA), the Department of Environmental Conservation, and the Public Service Commission, is investing auction proceeds to: improve energy efficiency; research, develop and deploy clean and renewable technologies; develop a green workforce; build capacity; and increase consumer awareness of cost-effective options for conserving energy.
 - i. RGGI policies need to be revised to be more favorable to biomass and biofuels energy production
 - ii. Life Cycle Analysis should be encouraged as an alternative to 100 year sourcing. Properties need to be encumbered for 100 years. As an alternative, third party certifications (e.g. FSC, SFI and Certified Tree Farms) could be better utilized.
- b. Cleaner Greener Communities program. Approximately one million dollars has been awarded to the three councils in the 5 county area for a Homegrown Sustainability Plan for the North Country. Plans are due in the next few months and it is expected that working forest will be a major component of the recommendations and strategies of this plan.

6. Invasive Species

Invasive species are a huge threat to the forest resource. Emerald Ash Borer and Asian Longhorn Beetle, to name just a few, could cause major changes in forest composition. In addition, residential areas, where ash trees are prominent, should be encouraged to inventory their street trees and better understand the quantity and location of their vulnerable species.

STRATEGIES FOR IMPLEMENTATION

Investing in the forest resource and making it available for harvest should be a focus of New York State in all its REDCs. Securing the necessary quantity and availability of the resource through landowner outreach, financial assistance such easements and tax policies, increased use of State Forests and State Foresters and controlling invasive species provide the basis for the recommendation and strategies.

The forests of the five county area are building additional growing stocks of wood fiber each year that could be available for economic activity. However, before long-term plans for utilization can be considered, there must be assurance that the forests will continue to grow timber that can be utilized by all elements of the forest industry, and that landowners will be willing to continue to harvest timber from their lands for the benefit of industry. A core premise of the above opportunity is that forest landowners become increasingly involved with the management of their forests by become better stewards of the resource. Specifically, there are seven distinct areas for the future forest-based economy:

1. Existing Large Tracts of Forestland

Large tracts of existing forestland should be maintained and made more available as working forests. In particular, focus needs to be on large working forests, Champion, East Branch of Fish Creek, Marcy, Salmon River Timberlands and several large private family owners and sportsman's club with greater than 250 acre tracts (e.g. great lots within the Core Forest of Tug Hill.) In addition, there are some 230,000 acres of State Reforestation land within the five county area. High priority lands for conservation easements for acquisitions should focus on in-holdings and properties adjacent to existing state Reforestation areas.

Easements on remaining blocks of privately owned forestland should be pursued. As the owners of these holdings age and taxes become more burdensome, it is crucial there be tools in place to assist them with managing their resource for the long term. The State must also consider making State Forest lands more readily available for harvesting and for maple syrup production.

2. Incentives for Retooling old Mill Sites

There are federal and state "Brownfield" funding programs and the State's Brownfield Opportunity Area programs (existing BOAs in Ogdensburg and Lyons Falls). This funding should be sustained and made in a timelier manner so that it can be better aligned with REDC funding cycles. There are numerous federal brownfield sites (e.g. Watertown and Carthage area) that need continuous funding from their federal sources. Existing priority projects should be sustained (e.g. Lyons Falls) and new projects, such as Ethan Allen in Boonville, need to be investigated.

3. Forest Capacity and Utilization Assessment

In both the local REDC plans and the NYSERDA Cleaner Greener Community efforts, a more localized and regional assessment of competing uses of forest products (e.g. biomass) is elevated as a priority. All those plans recognize the need to better study the wood with a new and emerging forest economy. Woodshed analysis should give stakeholders access to a better snapshot of the competing demands of the forest products industry and whether or not the forest resource can support it.

4. Forest Tax Policy

- a. The State must rethink the 480A tax abatement program to make it more accessible to landowners, however, it must do so cautiously so as not to cause undue tax burdens to surrounding landowners. The State must consider paying for a portion of the municipality's taxes should the tax burden shift by a certain threshold. In the past, this was 1%. This should be investigated as a viable option moving forward. Also, the State should consider paying taxes on all state lands.
- **b.** 84% of all residential and business heating comes from fuel oil. New York State should include thermal energy and conversion to biomass as a heating fuel an incentive to the Renewable Portfolio Standard.
- **c.** Change in RGGI program's 100 year sourcing requirement. Recent discussions show life cycle analysis as a viable alternative and this should be further investigated.

5. Landowner Encouragement

Forest landowners are generally older and cash poor, putting forestland at risk for being further subdivision in the near future. Forest landowners statewide are generally older (44% statewide are 65 years or older)¹⁸, and we would assume that is the case for this five county area. A small survey¹⁹ of Tug Hill landowners (larger than 25 acres), capturing attitudes towards their land, suggested that they do not necessarily hold onto their lands for the sole purpose of harvesting or managing their timber. Furthermore, 60% of respondents were interested or very interested in learning how to protect their land, for example with easements, suggesting that Tug Hill landowners are cash poor, but very interested in keeping their lands rural for future generations.

Similarly, in a Statewide study, "aesthetics" ranked first in a list of 12 reasons why private landowners own forestland. "Timber production" was ranked as important or very important by only 9% of private forest landowners statewide. The study goes on to suggest, however, that the "low priority given to timber production does not mean that landowners will not harvest trees. The relatively high number of family forest owners that have actually harvested trees (53% of owners holding 67% of family forests) shows that when conditions are right, most landowners will harvest trees..." A better assessment of larger landowners in the North Country is needed to more accurately assess attitudes of owners of large forested tracts of land.

Family forest owners have diverse interests and objectives for their forest land, which may include the use of land as a primary residence or for recreation, timber management or other purposes.²¹ Only 9% of family owned forest lands Statewide, however, have written management plans.²² Landowner outreach should be conducted to encourage the idea of

Forest Service, 2012.

¹⁸ US Department of Agriculture, US Forest Service & Northern Research Station, New York's Forests 2007, US Forest Service, 2012.

¹⁹ Audubon, New York, <u>A Survey of Tug Hill Woodland Owners</u>, Cornell University Human Dimensions Research Unit, 2011.

²⁰ US Department of Agriculture, US Forest Service & Northern Research Station, New York's Forests 2007, US Forest Service, 2012.

 ²¹Katherine H. Daniels, AICP, <u>A Municipal Official's Guide to Forestry In New York State</u>, New York Planning Federation, Department of Environmental Conservation & Empire State Forest Products Association, 2005.
 ²² US Department of Agriculture, US Forest Service & Northern Research Station, <u>New York's Forests 2007</u>, US

forest management planning for multiple benefits. As long as the cost of hiring a forester to create a forest management plan is prohibitive, however, the goal of increasing written management plans will not be reached. New York State must find creative ways of providing foresters to conduct management planning for landowners in a no cost or cost shared program.

Forest parcelization represents a similar obstacle to developing the forest economy. When landowners sell off pieces of their larger parcels, the resulting smaller parcels "create declining economies of scale for forest managers and timber harvesters, threatening the viability of the forested working landscape and in turn wood supply."²³ Also, "changing ownership patterns have the potential to remove significant acreages of forestland from the timberland category by changing ownership objectives and reducing the economic viability of management for timber."24 While forests comprise over half the land cover of the study area, it's important to remember that "an estimated 687,000 private individuals and enterprises own more than 14.3 million acres of forest land -76% of the State's total forest land. , 25 A possible threat, therefore, to the forest economy from so many landowners is that the "availability of forest resources for wood products, water quality, recreation, and management depends on the priorities and decisions made by the half million landowners in the state."26 How to make a recommendation about this?

6. Invest in Technology

The State should look into research and development for commercial applications in biobased products. When appropriate, technology should be transferred from a research focus to commercialization processes. Ways in which to fund this could include the renewable portfolio standard and RGGI. REDC's have an opportunity to make this happen through the Cleaner Greener Communities sustainability plans being created for each of the REDCs.

7. Global Marketplace

We export our goods to Canada and overseas²⁷, which is good for the business of harvesting and hauling, however, if we can add value before exporting, the industry may benefit higher in the supply chain. The North Country REDC places a high priority on improving Canadian Connections. Opportunities need to be explored where this can happen in the forest products industry.

8. Invasive Species

Keep Partnerships for Regional Invasive Species Management (PRISMs) funded, especially for Rapid Detection and Response. Invasive Species Protection Zones should be encouraged to sustain areas currently not affected by invasive species.

²³ Rene' Germain, Kevin Brazill & Steven Stehman, Forestland Parcelization in Upstate New York Despite Economic Stagnation and a Declining Population, Northern Journal of Applied Forestry, 2006.

Rene' Germain, Kevin Brazill & Steven Stehman, Forestland Parcelization in Upstate New York Despite Economic Stagnation and a Declining Population, Northern Journal of Applied Forestry, 2006.

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Economic Stagnation and a Declining Population, Northern Journal of Applied Forestry, 2006.

26 US Department of Agriculture, US Forest Service & Northern Research Station, New York's Forests 2007, US Forest Service, 2012.

²⁷ Crawford, Sloane, New York State Industrial Timber Harvest Production and Consumption Report – 2010, New York State Department of Environmental Conservation, 2010.

9. Recreation

The State should invest in and improve its existing recreation infrastructure, as well as look for ways to create additional recreational opportunities. Intact working forestland is demanded by hikers, birdwatchers, and any number of recreationists, which fits in with the recommendations listed above and can generate tourism dollars, both in the international and domestic markets.

There are many existing plans, for example Blueways, Byways, Signage, etc., that focus on recreation in New York state. The North Country REDC, in their scoring criteria for project funding, awarded extra points for projects that advanced objectives and recommendations identified in Blueway, Byway and other recognized plans. The Mohawk Valley and Central New York REDCs should consider doing the same.