



Northern New York's Forests

Timber Supply, Workforce, Infrastructure & Markets



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EXECUTIVE SUMMARY

In 2015, amidst increased demand for forest products and limited supply infrastructure in northern New York, the Adirondack North Country Association (ANCA) along with partners, including the Empire State Forest Products Association (ESFPA) and the Workforce Development Institute, agreed to undertake a study of the forest products industry in this region. The study is focused on assessing the challenges for maintaining a viable northern forest timber economy and to identify options for addressing the challenges this industry is experiencing. The analysis also explores how the addition of robust complimentary markets for low and high value wood, along with additional infrastructure to support the sustainable use of this natural resource could help rebuild the northern New York 14-County economy and the subsequent economic and environmental benefits that could result. ANCA hired Innovative Natural Resource Solutions, LLC, a northeast U.S. based consulting firm with over 20 years of experience in this field, to undertake the study.



14-COUNTY NORTHERN NEW YORK STUDY AREA

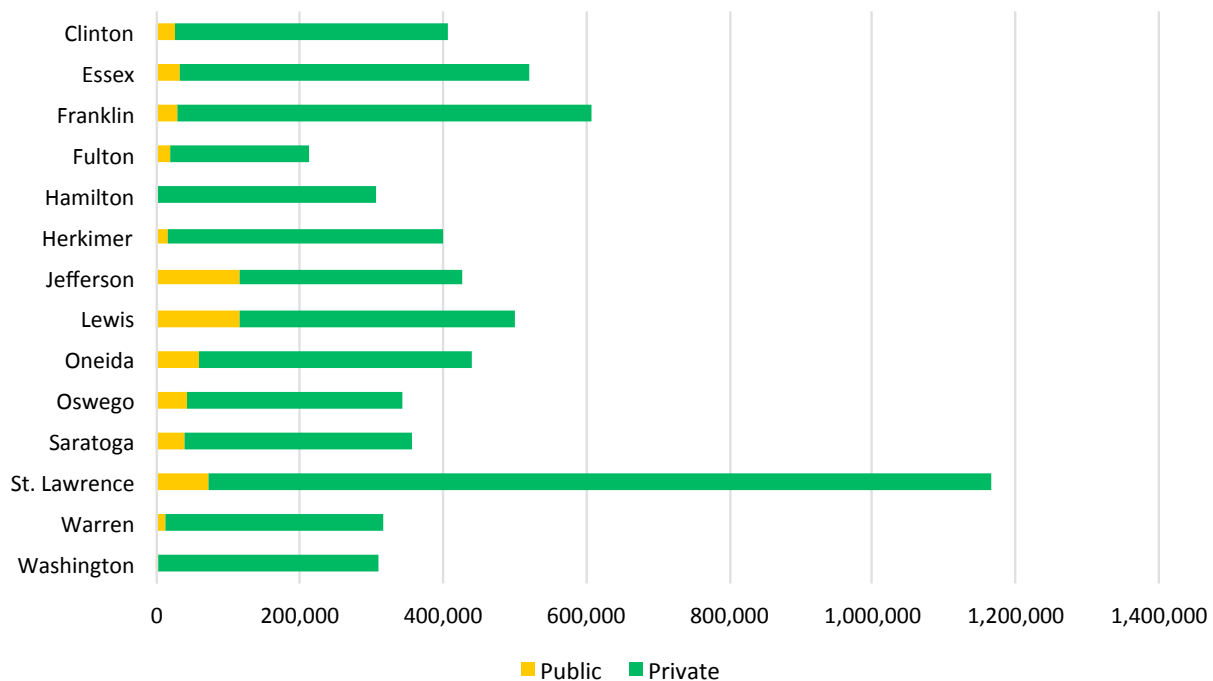
THE RESEARCH FOCUSED ON FOUR CRITICAL QUESTIONS:

- 1) What is the potential sustainable supply of wood from private and public lands in the region, while protecting other current ecological services provided by these forests? What is the anticipated additional annual volume of timber products available to new industry, and what are the anticipated species and types of timber products that the forest might be able to yield?
- 2) Will forest land owners make forest resources available? Where are they located, as specifically as possible?

- 3) Can we expect an adequate number of loggers to supply the existing industry? If so, can we expect an adequate number of loggers with appropriate equipment to supply an expanded market for wood products? What are barriers to entry and operation in the logging business?
- 4) Are there transportation barriers to an expanded forest products market, and if so, what are they? How adequate are the public and private roads for transportation of forest products? What inadequacies would need rectification in order to realize the potential sustainable wood supply?

The research and data development that form the basis of this study come largely from the USDA Forest Service's Forest Inventory and Analysis (FIA) data set, the Forest Service National Woodland Owner Survey (NWOS), state data and a series of interviews with experts and forest industry business leaders. Together, these investigations and analyses result in a series of major findings:

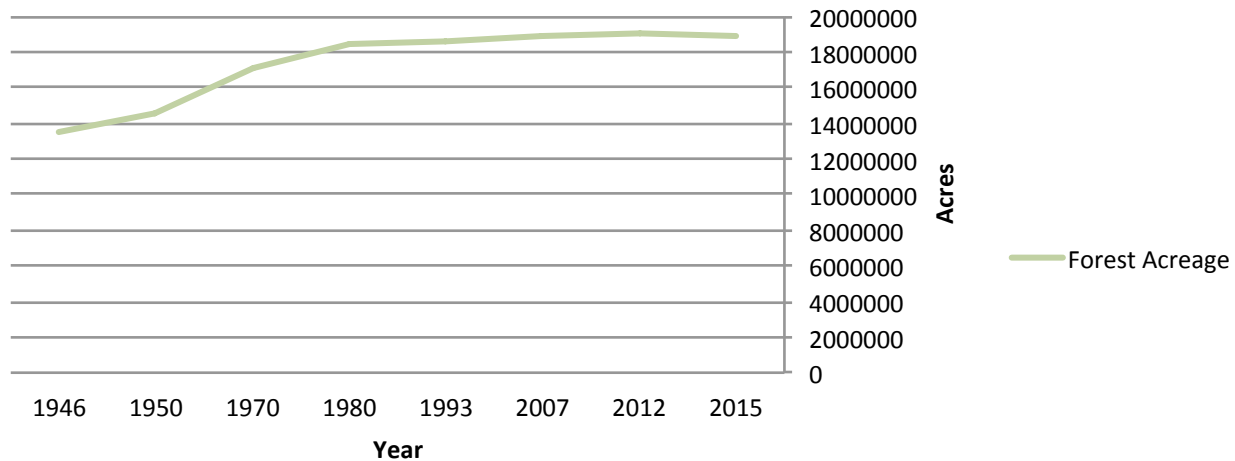
- Of over 8.8 million acres of forestland in the region, there are approximately **3.6 million acres of accessible timberland in the region** – land not already restricted from timber harvesting. Of this available acreage, 91% is privately owned;



Timberland ownership by County (Accessible timberland, after removing acres for physical, legal and landowner decision-making reasons, is 3.6 million acres for the whole region.)

- This **timberland base** has grown significantly over the last 100 years and in recent years **is relatively stable**. The most significant change recently has resulted from the nearly 104,000 acres that have been added to the Adirondack Forest Preserve since 1993 (state ownership) and, as such, have been permanently removed from the timber base;

New York Forest Acreage

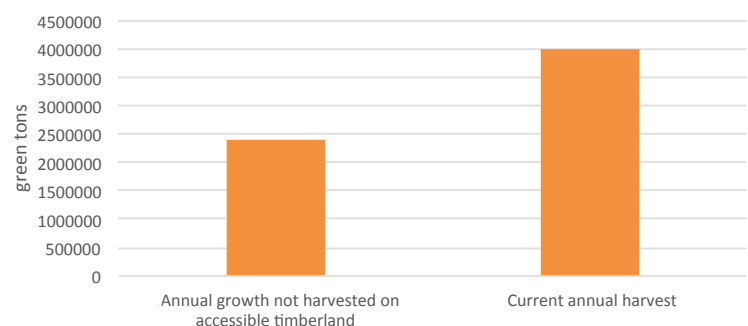


- Taking into account timberland that is not available for timber harvest for various physical, regulatory and landowner decision making reasons, there are approximately **78 million cubic feet (2.4 million tons) of timber growth each year that are not currently being harvested and are physically available for harvest without reducing the standing forest volume**. Current harvests are approximately 4 million tons annually;

Standing volume of timber (accessible acres only)



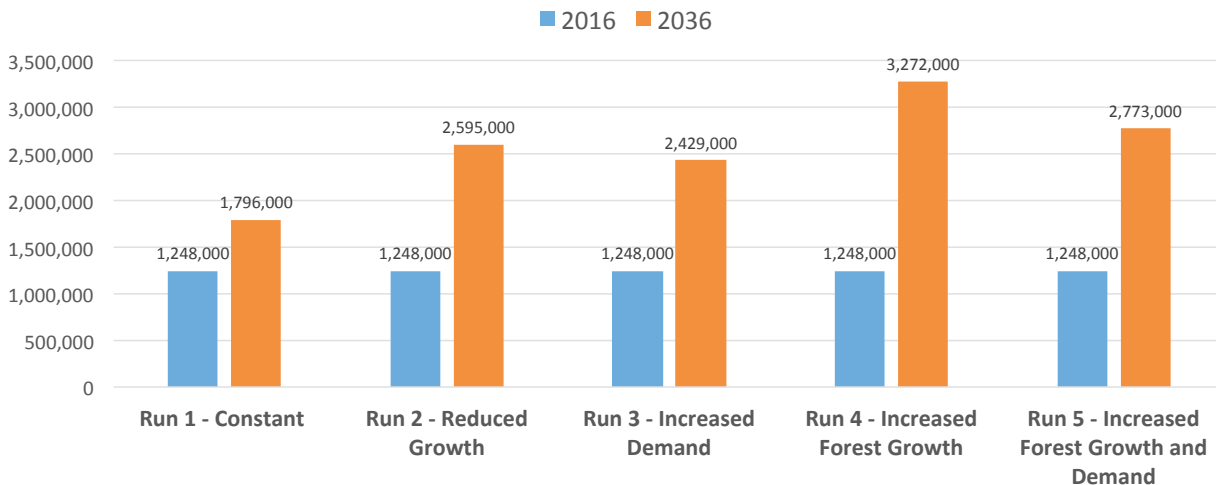
Growth and harvest - 14 county area



- Model runs using the **Northern Forest Biomass Project Evaluator** show that, due to current timber harvest levels that are significantly below annual growth in the 14-county region, **by 2036 as much as 3.2 million additional tons of timber will be available to the timber economy than is available today.**

BPE Scenario Runs

Available Timber after Existing Harvesting (green tons)



- **The region contains or is adjacent to the full suite of forest products markets** such that any tree harvested in the region has either a low-value or higher-value market and, compared to many other areas in the U.S., has abundant markets for forest products;
- **The supply chain infrastructure to move timber to market that includes harvesting and trucking is in place in the region** with dozens of individual companies and hundreds of individuals working in those sectors;
- The **harvesting and trucking infrastructure is adequate to supply the existing forest products markets at their current demand level;**
- The **harvesting and trucking infrastructure is inadequate to supply the existing forest products markets at increased demand levels** such as those experienced as recently as the winter of 2014-15. This **logging and trucking workforce is also aging**, which suggests future constraints can be expected.



As a result of these findings, and taking into account the overall project goal of seeking to expand the forest products industry in the 14-County region, the following are recommendations that forest stakeholders in New York should work towards:

RECOMMENDATIONS

1. SUSTAIN AND GROW THE FOREST PRODUCTS MARKETS THAT EXIST TODAY

A classic tenet of economic development is to make sure you keep the economic activities that currently exist because they are providing the economic benefits of jobs, taxes and local cycling of money, and it is difficult to get them back once lost. In the case of the forest products industry in this region, which is significant and relatively robust, maintaining this economic activity and infrastructure should be paramount in forestry stakeholders' and State efforts. This is especially true because some of the existing forest products markets are facing challenges at this time.

Today, there are two electricity plants using forest-derived wood chips as fuel in the region and a third just outside the region in Vermont. There are significant stressors affecting all of these plants, along with others in the northeast region. Prices being paid for wholesale electricity have dropped significantly in recent years. This phenomenon has been caused by many issues, especially alternative fossil fuel electricity generation that competes with the wood-fueled plants. As a result, these wood markets, which represent nearly one million tons of wood fuel market annually, are at risk of closure.

The region also contains four wood pellet manufacturing plants that use approximately

500,000 tons of low-value wood raw material per year as feedstock for plant production. These plants have also been stressed in the last year and one-half as a result of low heating fossil fuel prices as well as an extremely mild winter in 2015-16. While capable of rebounding if significant cold weather returns in the coming winter, along with rising fossil fuel prices, these plants are facing economic challenges at this time. Firewood markets, which represent over one million cords per year for all of New York, according to the New York Division of Lands and Forests, have also been affected significantly by these phenomenon.

Two pulp and paper mills that use wood as feedstock for the pulp and paper-making process are also located in the study area. Since 1999 in the northeast, particularly in New York, New Hampshire and Maine, 11 of 17 pulp and paper mills have closed operation due to the reduction in the worldwide market for pulp and paper, as well as the competitiveness and product mix of particular facilities. Two of these closures were in New York. The two remaining pulp and paper mills in New York are fortunate in that their product mix is better positioned than most of the plants that have recently shut them down. Despite this, these plants are subject to the reduction of worldwide demand phenomenon, and continued operations should not be taken for granted.

The region also contains over 30 sawmills that utilize the higher value logs that come from the harvest of timber in the area. Since the recession that began in 2008-09, this sector has recovered and continues to be strong, given strong demand of their lumber products. This sector is extremely important to the forest landowner component

IN THE CASE OF THE FOREST PRODUCTS INDUSTRY IN THIS REGION, WHICH IS SIGNIFICANT AND RELATIVELY ROBUST, MAINTAINING THIS ECONOMIC ACTIVITY AND INFRASTRUCTURE SHOULD BE PARAMOUNT IN FORESTRY STAKEHOLDERS' AND STATE EFFORTS.

of the supply chain in the region, since these markets pay the forest landowner significantly more than firewood, wood pellets, pulp and paper when the timber is sold.

Lastly, the timberland base itself is extremely important to the future health of the forest products industry. The accessible timberland is 91% privately owned and is relatively stable and large. The markets timberland owners depend on are currently robust and relatively stable. The State of New York should focus on actions that help retain the private timberland base and its accessibility to support these markets.

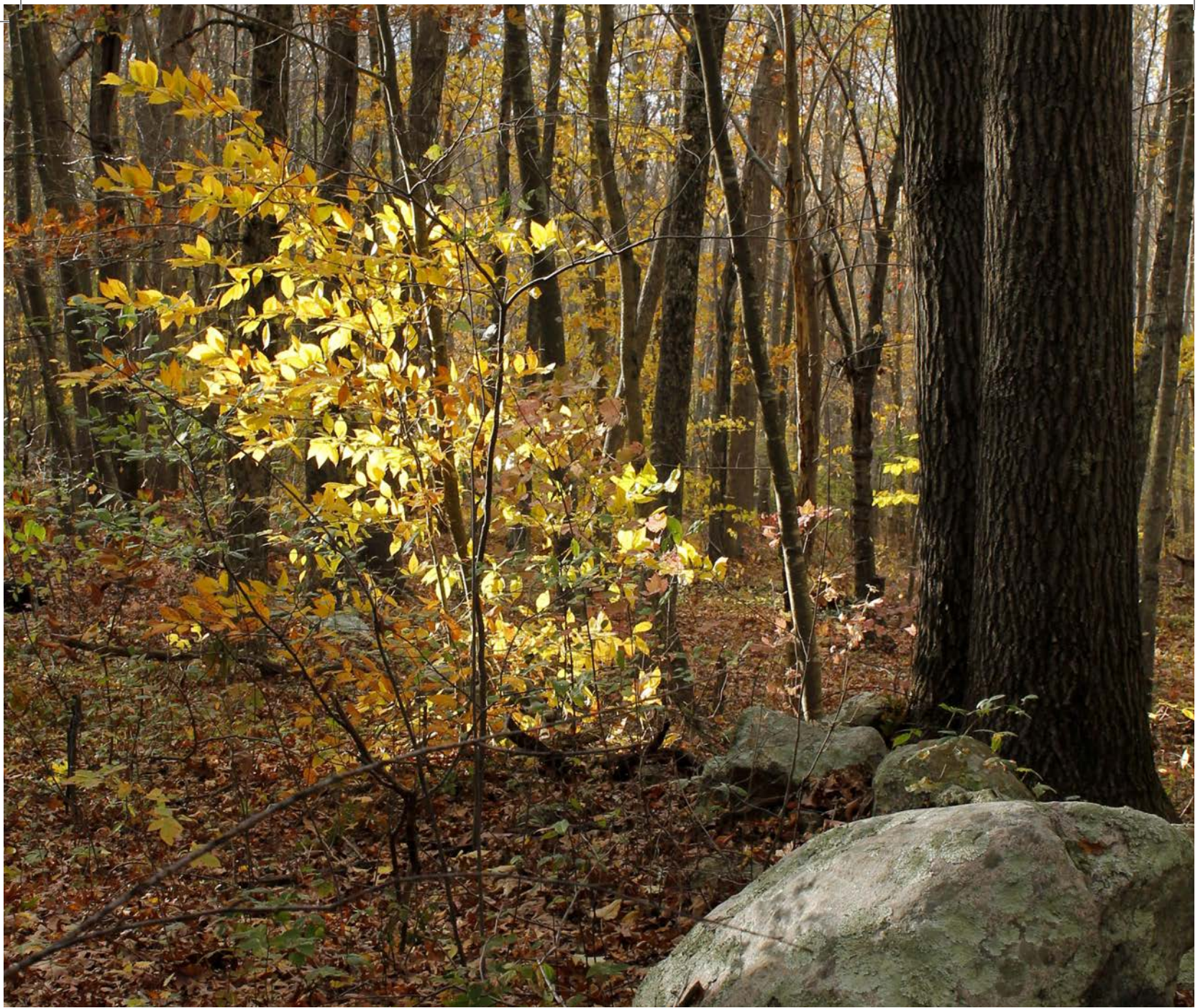
Collectively, the stresses on the existing forest products markets in the region demand action to ensure their continued (or re-started) operation. New York forest stakeholders should make this a primary focus of future efforts.

2. ENCOURAGE FOREST PRODUCTS MARKETS TO POSITIVELY INFLUENCE THE LOGGING AND TRUCKING INFRASTRUCTURE

Perhaps the most significant impacts, both positive and negative, that can affect the forest products supply chain logging and trucking businesses are the actions of the forest products markets themselves, i.e. the pulp and paper, biomass electricity, wood pellet, firewood and sawmill businesses. Having a market for forest-derived timber is the heart of the logging and trucking businesses and jobs these sectors contain.

Nearly as important as the markets themselves are the manner in which the relationships between the markets and the logging and trucking businesses are conducted. Particularly important are those periods where the demand for the manufactured products from these markets are reduced and/or the times when the logging production (supply) is more than the demand can handle. During these times of quotas – whereby the markets limit the amount of harvested products they allow producers to deliver to their facilities over a period of time – it can be very stressful to the producing loggers and truckers, who count on steady income to cover labor costs and debt service for their business equipment. Care and close communication between markets and their suppliers is essential to ensure that the producers are able to keep their businesses operating during and after these constrained market periods.

The point here is that the markets themselves, and how they interact with the businesses that supply their raw material can, depending on the approaches used, either add to the economic health of the supply businesses or detract from it.



3. SUSTAIN AND GROW APPROPRIATE STATE INVESTMENT IN THE FOREST PRODUCTS INDUSTRY

- **Conservation Easements:**

The State of New York investment in working forest conservation easements in the 14-County area – over 700,000 acres worth since 1993 – has been important to maintaining the timberland base available for harvest. While some might

suggest that these conservation easement lands produce less timber than private forestland without easements, there is no direct evidence that supports this premise. Research on this topic shows no cause and effect. The state should continue to prioritize investment in Working Forest Conservation Easements. In addition, land trust Working Forest Conservation Easements should be explored as an option when New York land trusts are working with timberland owners.

These are similar to agricultural conservation easements and encourage the sustainable management and harvesting of timber.

- **Capital Grants:** Additionally, the New York Capital Grants program has made investments in forest products industry market businesses with positive results. When these investments have been made in this industry, however, they have generally been limited to the manufacturing facility only and not to the related timber supply infrastructure. It is recommended that comparable investment be made in the timber supply infrastructure along with the manufacturing investment.

- **Private Forest Owner Carrying Costs:** New York State should help address private landowner carrying costs through property tax policy and cost-share programs. In addition, landowner outreach and education programs should be supported.

Since the Paul Smith's program is in its infancy, there is a great opportunity for the industry to help the College to design and develop the program to ensure it provides training that is most relevant to the needs of the logging/trucking businesses in the forest products industry in the region. It is recommended that selected members of the forest industry ask to partner with Paul Smith's to ensure that result.

It is recommended that all players in existing forest products markets in the region think carefully about the relationship they have with their forest products suppliers with a view to the long-term health of the suppliers and industry as a whole.

4. SUSTAIN AND EXPAND NEW YORK'S INVOLVEMENT IN LOGGER TRAINING PROGRAMS

The recent state appropriation to Paul Smith's College toward a modern logger training program is a good example of a number of significant opportunities to address a logging workforce that is not large enough to handle surges in demand like that experienced in the winter of 2014-15 or any other significant increased demand. The NY Logger Training (NYLT) program and SUNY ESF logger training programs at the Ranger School, in addition to the Paul Smith's program, are critically important. These are the mechanisms that will address the likely reduction in the workforce due to aging of logging personnel in the region.

