Forestry Subcabinet's "Growing Our Forests" Initiative: Jobs, Environment, and a Great Place to Live

Executive Summary

Forests, with all their resources, are priceless, natural assets that define who we are as Minnesotans. Trees, lakes, and loons are the state's iconic images. This is an outgrowth of the critical role forests play, have played, and will play in the life and culture of the state. Minnesota forests supply:

- Raw materials to support a vibrant forest products industry and growing renewable energy industries
- Amenities on which the state's tourism industry is heavily based and that attract and hold Minnesotans
- Ecologically healthy and dynamic landscapes that continually renew themselves to provide essential environmental, economic, and social benefits.

Minnesota's forests are natural assets that will depreciate if we do not carefully manage them. Conserving our forests will ensure a healthy, vibrant, and competitive Minnesota into the future. To meet growing expectations, we must actively manage our forests to enhance their productivity, health, and ecological integrity. For example:

- Industry needs healthy forests to ensure that a sustainable supply of high-quality wood fiber is available into the future.
- Growing forests are needed so they can continue as the cornerstone for connecting Minnesotans to the great outdoors.
- Growing forests are needed to ensure that our forests remain beautiful, ecologically healthy, and productive in the face of conservation challenges from exotic species and insects and diseases to wildfires and land-use changes.

Ensuring long-term forest health and productivity means creating a comprehensive and integrated management strategy that includes:

- Directing investments to public and private forest management
- Conserving priority working forests across the state
- Streamlining mechanisms for state timber sales to assist loggers, the state, and timber buyers
- Targeting economic development incentives and policy design to optimize the benefit of using available forest biomass as an energy source and to support viable primary and secondary wood industries and value-added industries.

The following three briefing papers and one fact sheet explain:

1. Needed investments to sustain and enhance Minnesota's forests
2. Needed policy changes and future actions to improve the management of Minnesota's timber resources
3. Needs for a forest BioEconomy strategy
4. Quick facts detailing the role of the forest products industry in Minnesota's economy.

Forestry Subcabinet's "Growing Our Forests" Initiative: Jobs, Environment, and a Great Place to Live

Forest Investments, Fiscal Year 2010

Total $10,000,000

Briefing Paper 1

Minnesota's Forests: A Cornerstone of the 21st Century

Minnesota's native forests played a critical role in the establishment of our state. Ever since then, our forests have been one of the state's cornerstones, generating wealth and jobs. But the forests are more than a resource; they define Minnesota and the identity of Minnesotans. The iconic images of Minnesota are loons, lakes, and trees because these resources are so fundamental to our quality of life and what we value.

We can keep forests a cornerstone of the state's economy and culture through investing to sustain their health and productivity. Healthy forests are key to retaining and growing jobs in forest products manufacturing and in supporting industry and tourism. Minnesota's resilient forests are also key to providing quality outdoor recreational opportunities, finding conservation-based alternatives to fossil fuels, and addressing climate change effects.

What It Takes to Sustain Minnesota's Forests

Investments in the sustainable management of Minnesota's forests help provide a continuous flow of the raw materials needed to keep forest industry strong while protecting the many connected forest resources and values that contribute to quality of life. Investments in key environmental initiatives must continue if forest systems are to be sustained in the face of increasing pressures for timber, recreation, and development. Just as important will be sustaining a flow of wood from Minnesota's forests to maintain the viability of the state's forest products industry and to meet society's growing demand for raw materials.

Minnesota's forest products industry is the fourth largest manufacturing sector in the state by employment, generating 11 percent of all manufacturing shipments. The estimated value-added impact of timber harvest is $41.60 per dollar of timber sold.

A Three-Part Approach. While the need for both wood and continued environmental initiatives appears incongruous, they are very much dependent on each other. The foundation of sustainable systems is three interconnected components—a healthy environment, a viable economy, and a vibrant community. A healthy environment is necessary for productivity and survival. A viable economy is essential to be able to afford programs that maintain a quality environment. Vibrant communities are needed to support efforts that maintain environmental quality and economic opportunity. If any one of these three components is out of balance for long, the state's forest systems will not be sustainable.

Capital Budget Requests

According to Article XI of the Minnesota Constitution, the Legislature may provide for the enhancement, management, and protection of the state's forested public and private lands. The following requests for state bond funds will support the conservation mission of both the state's constitution and Department of Natural Resources by helping to protect natural resources, provide outdoor recreation opportunities, and maintain the health and economic vitality of Minnesota's communities:

Minnesota Forests Initiative. Minnesota's forests are natural assets that will depreciate if they are not carefully managed. Four requests will enhance forest health, productivity, and diversity and contribute to a healthy and competitive economy:

- State Land Reforestation—$3.5 million to reforest state-administered forest lands. Site preparation, tree planting, tree seeding, and applying protection measures on newly planted trees on approximately 10,000-15,000 acres each year over the next two years will provide jobs—approximately 30 contracts of reforestation crew work.

- Forest Stand Improvement—$ 2 million to:
  - treat tree stands on state forest lands to improve the quality and value of Minnesota's forest assets
  - provide grants to local communities to implement fuel-load reduction projects that will decrease a community's exposure to damage from wildfires and provide a potential source of woody biomass.

Nearly 100 percent of this request supports jobs by providing contracts to loggers to accomplish the work. It is estimated that for every $1 million spent, approximately 100 contracts are created to improve 4,000 acres of forest lands. These are "shovel-ready" opportunities that create jobs.

- Roads and Bridges—$2 million to repair, replace, and construct bridges, decks, road surfaces, and culverts within the state forest road system, which encompasses more than 2,000 miles and provides access to 4.9 million acres of state-administered forested lands. The Governor's Task Force on the Competitiveness of Minnesota's Primary Forest Products Industry (July 2007) found the transportation infrastructure on state forest lands to be critical to the competitiveness of the forest products industry. Maintaining this infrastructure is also crucial to ensuring safe, public access to state forest lands. These road and bridge projects are "shovel-ready" and can be completed by private contractors through a competitive bid process, such as the dilapidated Mucky Creek bridge crossing in Badoura State Forest that was replaced within two weeks by a local company.

- Minnesota Forests for the Future—$500,000 to acquire perpetual conservation easements and fee title on private forest lands. Working forest conservation easements are a core tool to address the economic goals of sustaining regional timber-based economies by protecting the forest land base on which they depend. Securing public recreational access to private lands and securing permanent trail corridors also benefits the outdoor recreation tourism industry. This appropriation would be added to existing appropriations to leverage nearly $10 million in federal funds for forest conservation.

Community Partnerships. The Department of Natural Resources can work through partnerships to better meet local resource needs and address emerging natural resource issues. The following request will deliver grants to local units of government to help conserve natural resources and support economic growth:

- Diseased Shade Tree Removal and Replacement— $2 million to provide assistance to communities to treat isolated infestations of emerald ash borer (EAB), remove and replace trees, and develop response plans for EAB and other invasive species.

For Further Information Contact:

Dave Epperly
Director
Division of Forestry
Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, Minnesota 55155-4044
651-259-5289
dave.epperly@state.mn.us

Forestry Subcabinet's "Growing Our Forests" Initiative: Jobs, Environment, and a Great Place to Live

Strategic Management of Minnesota's Timber Resource—Policy Changes and Future Actions

Briefing Paper 2

Improve Resource Quality and Utilization

Improving the health of Minnesota's forests and the quality of the wood resource are critical to improving productivity of all forest resources while addressing the expanding demands and pressures on forest lands. Quality wood is critical to sustaining Minnesota's forest products industry. Having a quality wood supply reduces industry costs associated with manufacturing and waste treatments. Wood harvest and utilization are invaluable management tools for forest ecosystems. They also provide sustained long-term economic return to the state and other landowners.

Economic development and growth in the timber industry and the field of renewable energy will be dependent on efficient utilization and procurement of available resources. In order for wood to be used in a broad range of energy applications, the state must enhance productivity on available forested lands and sustain its logging and wood industry.

Meeting expanding demands for wood fiber while optimizing the productivity of all forest resources requires expanded investments and improved flexibility in the management of low productivity forest stands that cannot support a viable timber sale. Expansion of renewable energy utilization opportunities is a key factor in managing the cost of investments. Additional economic growth will be dependent upon managing for sustainability provided by healthy, productive forests and expanding the quality of renewable wood fiber resources.

The current economic downturn, housing slump, closures of several mills, and an overall weak economy are causing significant struggles for Minnesota's logging community. The state must ensure the sustainability of its logging community to allow for the continued resource procurement necessary for meeting Minnesota's renewable energy mandates. A needed change is providing flexibility in how state timber sales are offered, secured, and managed. This should include investments in evaluating and implementing program and system improvements for increased efficiencies.

Improve Wood Fiber Utilization

The following strategy components support the Department of Natural Resources' strategic direction to enhance the state's conservation-based energy sources. This strategy also improves and streamlines the mechanics of the department's timber sales.

- Amend *Minnesota Statutes*, Chapter 90 to:
  - ▸ Allow the commissioner of Natural Resources to reoffer unsold tracts of timber at public auction at below appraised value.
  - ▸ Clarify that down payments made on state timber sold at public auction conducted by a sealed bid process must be received or postmarked within 14 days of the date of the sealed bid opening.
  - ▸ Add that a bid guarantee, in addition to a down payment, is only needed for a bid increase made on a timber sale permit that is in excess of $5,000 of the appraised value of the timber.

  (*2010 legislative initiative*)
- Survey Minnesota's and the Midwest Region's forest industries and logging communities on timber sale design opportunities (e.g., large block sales) and marketing methods to improve utilization off of state forest lands. Provide

recommendations to the 2011 Legislature on changes to Minnesota timber statutes to address opportunities or problems identified in the survey. (*Forestry Subcabinet future action*)
- Establish priorities within competitive state grant funds (e.g., Legislative-Citizen Commission on Minnesota Resources, Department of Employment and Economic Development) to support research for and development of woody biomass harvesting equipment. (*Forestry Subcabinet future action*)

Improve Wood Fiber Quality and Availability

- Provide support through bonding (see Briefing Paper 1) for investments to recover or enhance the productivity of state forest lands. (*Forestry Subcabinet 2010 action*)
- Convene an interagency roundtable to provide recommendations related to reducing volume and quality losses associated with an aging forest resource. (*Forestry Subcabinet future action*)
- Charge the Minnesota Forest Resources Council with implementing a 10-year analysis of the opportunities and impacts of focusing a percentage of state timber harvesting operations on younger stands that have peaked in potential for annual fiber productivity based on ecological classification. (*Governor's directive*)

Sustain the Logging Community

Significant challenges exist within the Minnesota logging community in acquiring reasonably priced security for state timber sales. Providing financial institutions access to the equity of the timber values on these permits should provide improved access to financial security within the logging community.

- Amend *Minnesota Statutes*, Chapter 90 to allow banks and other security providers to have first access to timber under permit for which they have provided security. (*Future legislative initiative*)
- Provide contractual opportunities associated with forest stand improvement operations under the proposed bonding project above. (*Forestry Subcabinet future action*)

Implementation of these strategies will be pursued through the Division of Forestry's existing timber program.

Accomplishments

- To help keep forest industry mills that are dependent on secondary species operating during the current economic downturn, Department of Natural Resources field foresters have been directed to identify and offer for sale stands that can help provide needed species primarily through intermediate stand treatments (i.e., thinning and selective harvest). An example of the response to this initiative is that the volume of red pine pulpwood offered and sold increased by 86 percent from Fiscal Year 2008 to Fiscal Year 2009 (24,370 cords to 45,443 cords).
- *Minnesota Statutes*, section 90.162 allows state timber permits to be divided into cutting blocks, thereby reducing upfront security requirements. This provides some relief for loggers with constrained cash flow, and may create stronger opportunities to harvest state permits. The Department of Natural Resources is encouraging permit holders to take advantage of this multi-cutting block option on existing permits where it makes sense for them to do so. In addition, this option is now being considered when new timber sales are set up.

For Further Information Contact:

Olin Phillips
Forest Management and Protection Section Manager
Division of Forestry
Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, Minnesota 55155-4044
651-259-5253
olin.phillips@state.mn.us

Minnesota Forest BioEconomy Strategy

Briefing Paper 3

Strategic Investments in Forest BioEnergy Development

Wood is Minnesota's oldest and most versatile renewable energy resource. Because wood is so versatile, it is imperative to focus investments on strategic opportunities.

The Green Enterprise Assistance program and participating agencies will work with companies to grow forest bioenergy projects that contribute to:

- Sound and ecologically appropriate forest management
- Related state environmental policies such as the Regional Haze State Implementation Strategy, carbon emission reductions, and carbon sequestration
- State economic goals such as job retention and expansion
- Efficient use of the wood resource
- Coordination of forest biomass strategies with agricultural biomass strategies.

Emerging priority strategies include:

- Shifting Minnesota's heavy industry from fossil fuels to renewable fuels
- Building on existing industry
- Enhancing compliance with the Clean Air Act's visibility standards for northern Minnesota.

Smart policy will enable growth of the wood energy sector, other renewable sectors (wind, geothermal heat pumps, solar thermal manufacturing, etc.), and position Minnesota employment engines such as taconite and paper production to compete in a changing world.

Strategic Forest Biomass Utilization Compliments Other Renewable Resources

Smart policy will enable forest biomass to compliment other growing clean energy industries in Minnesota such as the wind, solar, and geothermal industries. These technologies have significant value but have less flexibility in their application. Wood can be used to offset fossil fuels in markets, such as industrial process heat, where other renewable resources are not suitable.

Forest Biomass Utilization Supports Forest Management

Biomass markets can utilize wood resources that historically have not had outlets. This will enable resource managers to pursue a wider range of resource management practices. Implementing practices such as brushland harvest, pre-commercial thinning, and forest health projects will improve forest conditions and productivity. Refer to briefing papers 1 and 2 to see what bonding initiatives and current and future legislative policy initiatives are recommended to help increase forest productivity while providing potential sources of woody biomass.

Implementation Strategy

Under the direction of the Forestry Subcabinet, implementation will be twofold:

- Expanding the sustainable supply of woody biomass (DNR lead)
- Targeting economic development assistance (Department of Employment and Economic Development lead).

Biomass supply development includes increased use of slash, pre-commercial thinning, invasive species treatments, utilization of low-value species, fuel-load reductions, and brushland management.

For Further Information Contact:

Mark Lindquist
Biofuels Program Manager
Commissioner's Office
Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, Minnesota 55155-4044
507-359-6038
mark.lindquist@state.mn.us

Forestry and the Forest Products Industry in Minnesota

Fact Sheet – February 2010

Why Forestry Matters—With 33 percent of the state being forested, Minnesotans depend on their forests for many things, including wildlife habitat, recreation and tourism, clean water, natural beauty, and forest products.

Sustainable forest management is important to everyone in Minnesota. In simple terms, "sustainability" means managing forests so future generations of Minnesotans can enjoy the same benefits provided by today's forests. In Minnesota, wood for industry comes from private state, county, and federal forests that are managed to provide multiple benefits to the state's citizens.

The Department of Natural Resources, many counties, and a number of large private holdings have been awarded one or both of the Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) third-party certifications on their managed forests. This documents a long-term commitment to sustainable forest management.

Healthy Industry Is Critical to Healthy Forests—There is an intricate connection between forest industry and sustainable forest management. Trees are a renewable resource and foresters normally use commercial timber harvesting as part of the process of maintaining forest health and productivity, and for managing fuel loads to reduce the risk of wildfire. It is almost as simple as this: No wood markets = No forest management.

With the development of improved markets over the past 25 years, foresters can now better accomplish management and regeneration at commercial harvest time. Not only are stands regenerated and forest health improved, but landowners (including state, county, and federal governments) are paid for the timber!

Pulling Together in Tough Times—The current housing slump and overall weak economy have caused great struggles in Minnesota's forest industry. Several large mills and many smaller ones have closed in the past three years. It is critical that Minnesota's remaining industry stays competitive. The best thing we can do to ensure that it does is to continue managing our forests and making wood available. The future health and productivity of Minnesota's forests depends on it.

Minnesota's Forest Economy—The forest products industry is the fourth largest manufacturing sector by employment, generating 11 percent of all manufacturing shipments. The value-added impact of timber harvest is $41.60 per dollar of timber sold. And, forest industry generates an estimated $144 million in state income and sales taxes annually.

Direct Economic Impact	
Employment	37, 850 jobs
Annual Payroll	$1.6 billion
Value of Shipments	$7.2 billion
Value Added	$3.5 billion
State Income & Sales Taxes Paid	$144 million

Total Economic Effect [1]	
Employment Effect	121,120 jobs
Output Effect	$13.1 billion
Value Added Effect	$6.3 billion

Manufacturing Facilities	
Pulp & Paper Mills	5
Recycled Pulp & Paper Mills	3
Hardboard & Specialty Plants	3
OSB[2] / Structural Panel Plants	2
Sawmills	500+
Specialty Businesses	150
Secondary Manufacturers	800+

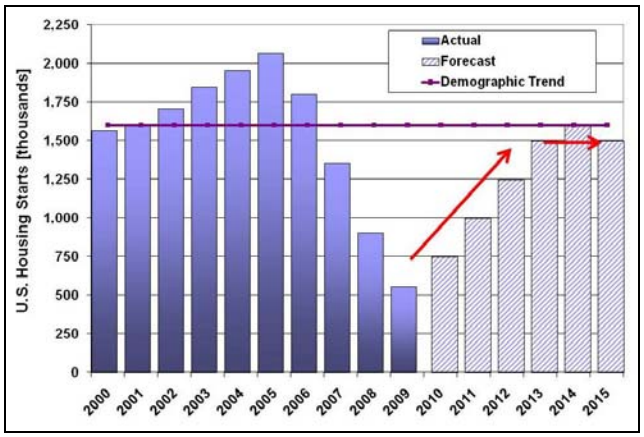
Timber Harvest	
Pulpwood	2.3 million cords[3]
Sawlogs & Specialty Products	250 million board feet[4]
Fuelwood	180,000 cords

Table Notes

[1]Economic multipliers account for the indirect and induced effects of inter-industry and household spending.
[2]OSB = oriented strand board.
[3]Cord = 79 cubic feet of solid wood.
[4]Board foot = a piece of wood 1 inch by 12 inches by 12 inches.

Outlook—In Minnesota, net wood fiber growth is significantly higher than removals plus losses to mortality. This wood fiber surplus facilitates opportunities to maintain and improve forest health, expand wood-using industries, and support quality of life through tax-funded public services.

Housing: U.S. starts declined 75 percent from a peak 2 million in 2005 to 550,000 in 2009. The composite forecast is that starts will reach the 1 million mark again in 2011 and reach the demographic demand of 1.5 million by 2013.

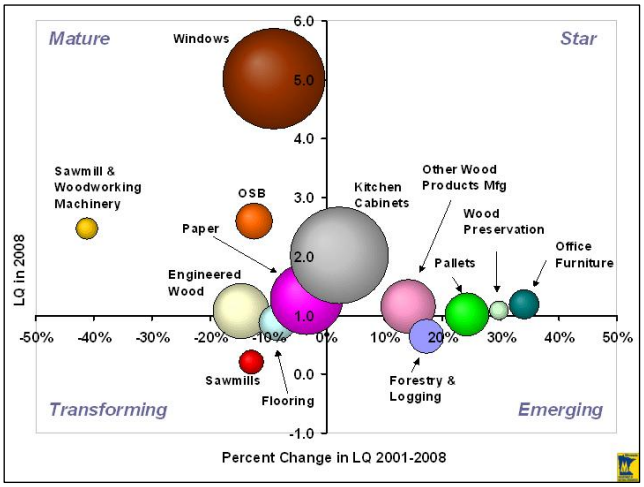


Paper & Packaging: Growth in demand for paper is positively correlated with growth in gross domestic product (GDP). World GDP growth was negative 1.1 percent in 2009, forecast to rebound to 3.9 percent growth in 2010. U.S. GDP growth was negative 2.5 percent in 2009, forecast to rebound to 2.7 percent growth in 2010. In comparison, the U.S. averaged 2.8 percent growth in GDP since 1997. China and India have been the primary growth markets over the past decade.

Top 10 Economies by GDP	US$ (trillions)	Forecast Change in GDP (percent)	
	2009	2010	2011
EU-27	$16.2	1.0	1.9
US	$14.3	2.7	2.4
Japan	$5.0	1.7	2.2
China	$4.8	10.6	9.7
Russia	$1.3	3.6	3.4
Brazil	$1.5	4.7	3.7
Canada	$1.3	2.6	3.6
India	$1.2	7.7	7.8
Mexico	$0.9	4.0	4.7
Australia	$0.9	6.8	2.3
World	**$57.2**	**3.9**	**4.3**

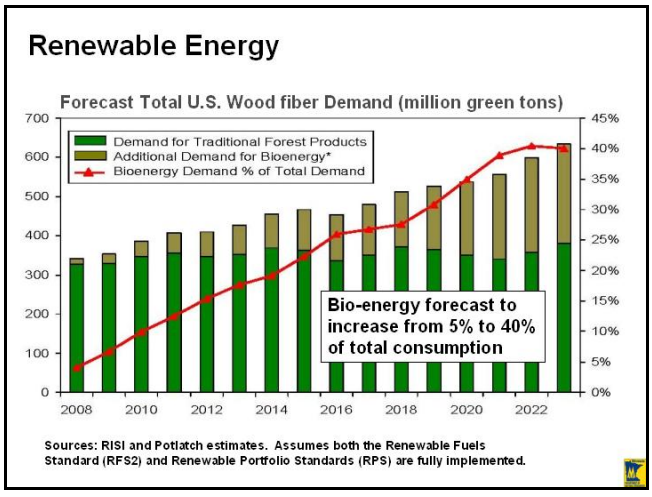
Source: International Monetary Fund, World Economic Outlook Update, January 2010.

Industry Diversity: For both economic and forest management benefits, it is critical that Minnesota maintain a diverse forest industry with a significant value-added component. For example, Minnesota specializes in manufacturing wood windows, kitchen cabinets, oriented strand board, and paper products. This will be no easy task in the current difficult economic and capital investment environment.



Location Quotient (LQ) = $(E_X/E_T)/(N_X/N_T)$ where: E_X is state employment industry sector X, E_T is state total employment, N_X is national employment in industry sector X, and N_T is total national employment.

Renewable Energy: Wood-based renewable energy has important climate change and national security benefits. In the U.S., wood fiber use for renewable energy is forecast by some sources to increase from 5 percent to 40 percent of total industrial wood fiber consumption by 2022. Logging residues are readily available and have the economic potential to meet much of expected demand growth.



Contact: Don Deckard, State Forest Economist, mailto:donald.deckard@state.mn.us, (651) 259-5287