



A Project of the Kennebec Woodland Partnership

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Building Maine's Local Wood Economy, Together with Conservation

*Harold Burnett of Two Trees Forestry, Consultant to Local Wood WORKS
December 2016*

Maine's woods are vast – its advocates, landowners, hikers, loggers, mill workers, regulators, and foresters have worked for generations to sustain their families and communities from its bounty. Collectively, they have also protected Maine's timber resources, wildlife, waters, and recreational opportunities –assets that contribute to the strong brand that is known world-wide, as Maine.

During this period when many of Maine's large wood product mills have closed, Local Wood WORKS (LWW)* partners have been working to advance new rural economic development initiatives. Our collaborative work, which is based on a set of shared principles, is focused on the critical importance of keeping Maine's forests as forests and supporting rural communities. LWW partners feel an obligation to be a part of those communities, and also believe that forests, fields and other undeveloped spaces are part of what can make them great, along with good jobs, good schools, and active civic discourse. They all work well together. However if some of those pieces are missing, the other dynamics often suffer. Thus LWW wants to focus on economic development and forest conservation, in order to invigorate the towns and cities where our families live, and importantly, want to live. Encouraging a local wood movement, where a logger harvests logs from a landowner's woodlot, that are processed by a local sawmill into products that are incorporated into the new town hall, its neighboring house, or its kitchen cabinetry or flooring, is one way we can support vibrant communities.

LWW Partners are committed to promoting greater use of wood, as a locally-sourced and efficient heating alternative to fossil fuels, a light-weight and strong construction alternative to energy-intensive concrete and steel, and a means to sustain a diverse and ecologically-rich forested landscape. Wood, of course, is also esthetically pleasing, indelibly linked to our colonial and industrial pasts, and a simple means to capture carbon dioxide, store it for generations, and thus help combat climate change.

For inspiration, we harken to a past, when Maine's forest industries were geographically dispersed and structurally diversified. Yet we envision a future when Maine's entrepreneurs develop a similarly broad, but highly innovative, economy from the terrain of a forested landscape. We believe that Maine has great potential to increase its use of wood, and in so doing provide greater employment and stability for Maine families. These businesses will in turn, be dependent on the long term sustainable management and protection of Maine's forests and their associated values.

The Local Wood WORKS partnership supports and has prioritized the following initiatives.

1. Create a Coalition of Local Wood Heat.
2. Promote greater use of wood in buildings and consumer goods.
3. Develop and promote locally-preferred procurement policies for governments, businesses, non-profits, and individuals.
4. Support the permanent conservation of working woodlands and ecological reserves.
5. Maintain and promote Maine's current-use taxation programs.
6. Promote business management education and training within the forest products industry.

We arrived at these ideas after hosting numerous listening sessions around the State, with builders and architects, mill owners and land managers, loggers and foresters, and energy and conservation advocates. We heard wide-ranging policy suggestions but narrowed our focus to those strategies that LWW members believe will best support Maine's rural economies and a conservation ethic. To its advantage, as a whole LWW's Partners are dispersed throughout the state, well linked to the landowning public and many businesses, and respected by their members, communities, and public and private foundations and other governmental and non-governmental agencies.

However we also recognize that our organizations have limited ability to meaningfully influence the business practices of large manufacturers, given the national and global marketing strategies, federal tax and ownership policies, and sophisticated investment necessities that buttress and undergird those economies. Our six initiatives focus instead on smaller, more local opportunities, and in so doing strive to broaden the diversity of forest product manufacturers.

This document is intended to be action-oriented while also suggesting more long-term opportunities. A draft of it was circulated to the LWW partners and participants from the winter/spring 2016 listening sessions; in October many of them gathered to comment and suggest concrete ways forward. A compilation of those thoughts is presented toward the end of this document. However, this paper is intended only as a first step in a series of actions, including additional funding assistance, to more specifically direct this process during 2017, which will include short and long-term recommendations, funding options, and policy recommendations leading to tangible projects that will help stimulate Maine's forest economy and the continued conservation of its forestlands.

LOCAL FARMING AND FORESTRY – TRANSFERABLE LESSONS?

Local Wood WORKS began this effort expecting to model our recommendations on the experience of the local food movement, with its effort to reduce energy and transportation costs, capitalize on the consumer desire to support their farming friends and neighbors, and in so doing circulate more cash locally and thus bolster Maine communities. Community-supported agriculture has linked residents and visitors with farmers, expanded markets for locally produced food, and increased farm incomes.

While we anticipated mimicking food's success, given the more centralized and highly mechanized nature of wood processing in Maine's current forest products industry, we found few current parallels with agriculture, with its "Know your Farmer" appeal. As well, it is easier to keep food awareness before consumers, given that we eat daily and often decide what we purchase and consume multiple times each day, whereas we may only buy lumber, cabinets, firewood, etc. annually at best, though more likely once each decade or longer; thus convenience and price generally direct our wood purchases.

However, the local food movement began with some of these same disadvantages, with western/foreign producers dominating what food was available locally. However, during the last few years many residents, visitors, and restaurants began favoring locally grown produce and helped support the recent proliferation of farmers' and local foods markets. So today, for example, tomatoes can be purchased during mid-summer and fall in virtually every Maine community, and during all other months from the new greenhouses of Backyard Farms in Madison, ME; times changed, opportunities developed, and new jobs ensued. We believe that Maine's consumers and producers can create a similarly vibrant market awareness and expansion for local wood products.

But as mentioned, the two industries and their marketing opportunities are quite different. Unlike in agriculture, the productive capacity of Maine's wood processing facilities far exceeds current in-state demand, and thus most of what Maine's moderate to large-sized mills produce is wholesaled to publishers, large box stores and retailers, and other buyers in southern New England and the Mid-Atlantic States. The LWW partners would rather not accept the notion that in-state demand is of little consequence, and thus prefers to invigorate and expand in-state markets and in so doing diversify and enlarge Maine's forest products industry. For example, one of the unfortunate results of recent pulp mill closings may become a great opportunity. The reduced processing of pulpwood has created an oversupply of small diameter, limby, and crooked trees. LWW partners believe that some of this forest resource can be processed in Maine and sold to its residents, businesses, and municipalities, with its well-known silvicultural benefit; removing such trees from the forest speeds the time required for neighboring straight and sound trees to grow into high-value sawtimber and veneer-sized products. The potential expanded use of this former pulpwood as fuelwood, including biomass chips, pelletwood, and firewood, to heat institutional and municipal buildings, businesses and residences, can benefit local loggers and landowners and reduce the combustion of fossil fuels.

These energy-related markets are highly suited to smaller manufacturers and wood processors, those that are marginally linked to national/global consumer trends given that such businesses are often based on personal relationships with success governed significantly by the efforts of owners and employees. These businesses tend to market their products as niche items rather than commodities, or they sell commodity products like firewood in large part because of long established records of good service and quality produce. These manufacturers seem to have somewhat more pricing flexibility than the larger commodity producers and generate many local benefits. However, such benefits will likely come slowly, and thus won't quickly replace jobs lost during the recent pulp mill closings.

However, by purposefully striving to improve connections between Maine's manufacturers and Maine's consumers, LWW partners believe that such a business climate can assist current businesses and communities and, over the long haul, encourage new manufacturers to market to this expanding consumer base.

IDEAS FOR CONSIDERATION, 2017 - 2022

The Local Wood WORKS partners envision a Maine where forests are managed for the protection of ecological values, public resources, carbon storage, recreational opportunities, and, not least, private financial gain. We also picture a population that consumes carefully and recognizes that its consumption of natural resources has visible consequences. Consumers will see sustainable timber harvesting as a short-term disturbance in a multi-generational story and forest managers and producers will work to be responsive and respected stewards of the resources that Mainers feel an 'ownership' toward, knowing that some private and public landowners will continue to manage important portions of their forestlands as ecological reserves.

LWW's top priority will be to encourage Maine's forest landowners to maintain as much as possible, their forests as forests, and promote market-based public policies that support a sustainable financial basis for long-term forestland ownership. The Partnership's efforts will be driven by its member organizations and individuals and, in collaboration with forest based businesses, will encourage supporters to lead by example, by actively managing forests, adopting procurement policies that encourage use of wood-derived supplies and building materials, and promoting strong landowner education about the role that private working forests have in supporting a rural-based economy.

We believe that the following six initiatives hold promise over the long term. Many suggestions are decidedly low-tech and do not require major public policy changes, but rather suggest a realignment of business practices and organizational relationships. Each initiative is additionally supported with more detailed suggestions. The supporting ideas are not intended to be finite, rather a compilation of some of the ideas expressed during the listening sessions, and subject to refinement by working committees.

1. Create a Coalition for Local Wood Heat. Daunting economic challenges hinder the expanded use and efficient combustion of chips, pellets, and firewood for heating living space and water, in the short-term. However, these fuels are in demand throughout the state, don't include wild price fluctuations, can be generated entirely through the efforts of Maine workers, and are an alternative market for plentiful pulp-grade wood. LWW should build, organize, and lead a coalition charged with promoting legislation and local community heating initiatives and conversion efforts. Specifically:

- Review the 2009-2013 "Fuels for Public Buildings" projects funded by the American Recovery and Reinvestment Act of 2009 and document actual capital expenses, fuel costs, and any design details that would helpfully illustrate how to replicate/improve each project. Review the history, successes and challenges associated with wood-fueled institutional heating projects, such as those installed at Colby College and UMaine - Farmington.
- Support the Northern Forest Center's Modern Wood Heating initiative.
- Promote district heating and co-generation plants for communities, institutions, and business parks to be powered by wood. Advocate for a "Phase II" program that renews thermal renewable energy credits (REC) to help support the fossil-to-wood fuels heating conversion of more schools and industrial/light industrial facilities.
- Help promote Efficiency Maine's wood pellet boiler and stove rebate programs.
- Provide small manufacturers (e.g. Erik Carlson and his small (700 tons/year), first in the nation, pellet plant in Boothbay, ME) with financial/educational assistance to promote/describe their underlying business models.

2. Promote greater use of wood in buildings and consumer goods. What once was a nearly universal building material, for ships, homes, barns, and consumer goods throughout the colonial and industrial eras, is now often replaced by energy-intensive steel, concrete, and plastic. LWW would like to reclaim those markets with wood.

- Require all designers, competing for public building construction, to include a wood-construction alternative, or at least offer a preference, for wood-based design.
- Research the production suitability and marketability of Maine-based cross-laminated timber (CLT). Concurrently develop Maine-grown spruce-derived CLT that meets NELMA specifications. Update Maine Uniform Building and Energy Code (MUBEC) to include more wood options including CLT, Mass-Timber, and Glulams. Help educate codes officers, builders and architects about the multiple benefits (structural, fire-resistance, energy & building envelope/insulation) of traditional and engineered wood products.

- Encourage legislation to make building code and fire code standards more flexible for wood buildings, and to incentivize the use of wood in buildings.
- Support New England Forestry Foundation’s “Build it with Wood” campaign.
- Engage with architects and industrial designers.
- Encourage LL Bean, that currently offers for on-line sale only seven Maine-made wooden products, to offer a marketing agreement to the contest winner of a wood-based consumer good.

3. Develop and promote locally-preferred procurement policies for government, businesses, non-profits, and individuals. Maine residents and visitors would likely redirect at least a portion of their purchasing to local businesses, if they knew better where such products and services could be acquired. Similar behavioral changes could be instituted at businesses and organizations by adopting local-friendly procurement policies.

- Develop sample policies and maintain a current and readily available directory of local sustainable forest-derived products and services. Engage the “Get Real, Get Maine”, a database-driven website and outreach program, by expanding its inclusion of forest products and services.
- Encourage the Maine brand. Support Business-to-Business marketing of Maine wood products, including value-added consumer goods, lumber, pellets, etc. with a broad marketing effort.

4. Support the permanent conservation of working woodlands and ecological reserves. Maine’s forest must be whole to be healthy and include all habitat components, including currently underrepresented types, such as late successional forests.

- Foster and continue landscape level forestland collaborative conservation projects among Maine’s state agencies, land trusts, and conservation commissions.
- Develop and market education programs that focus on the benefits of working woodlands and ecological reserves. Encourage land trusts to model both management options on their fee lands.
- Encourage land trusts and State agencies to share best practices for working forest easements.

5. Maintain and promote current use taxation programs. Private owners, through their participation in the current use tax programs (Tree Growth, Farmland, and Open Space), conserve a significant acreage of forests, far in excess of what is protected by public and private groups. Though the participation in current-use taxation isn’t legally binding, the financial disincentives to develop them are generally significant. It is likely that current-use participation will grow, especially in southern Maine, given that most owners enroll entire woodlots into the program, but tend to remove them only an acre or two at a time, when selling house lots, for example.

- Create a marketing strategy to promote Maine’s current-use taxation programs to those landowners not currently enrolled.
- Remove the 15,000-acre cap on landowner’s participation in the Open Space program.
- Encourage land trusts to support their member towns by paying property taxes at current use rates for their fee lands.
- Expand MDIFW’s Landowner Appreciation Day to include recognition of those lands enrolled in the current-use tax programs.

6. Promote business management education and training within the forest products industry.

Not all mill closings, layoffs, or lost orders are due to outside factors. Many small businesses provide excellent service, but are supported on a weak business model, often due to lack of business education. Quite often, it seems, Mainers like to do things the way they have always done them, which may make work simple, though it doesn't make it necessarily efficient or strategic. Fortunately Maine has an abundance of quality business trainers, which for many businesses require no cash outlay, only a willingness to learn and a commitment to instructional time.

- Support the Northern Forest Center's Wood Products Innovation initiative.
- Partner with vocational schools and workforce development programs to train prospects for jobs throughout the forest industries, including precision manufacturing, carpentry, sustainable forest management, logging, and other skilled trades.
- Educate financial institutions and gap-financing organizations that do commercial lending about logging and the forest products industry, while encouraging loan guarantees, among other instruments, to support start-up and existing businesses.
- Work with economic development organizations and capitalize on public-private partnerships to create business incubators and shared workspace hubs, to give entrepreneurs access to tools, partners, and equipment at reduced or shared costs to assist in growing young businesses.

ADDITIONAL IDEAS AND PROCESS FOR CONSIDERATION, 2017 - 2022

In October 2016 a group of LWW partners and other interested parties discussed the six suggested initiatives and offered means of promoting several of them, specifically in regard to updating State building codes, promoting large wooden building construction, and creating a directory of locally sourced wood.

- **UPDATE BUILDING CODES**

Reach out to code officials and the state fire marshal's office to discuss the potential use of cross-laminated timber (CLT) and other composite wood products in commercial construction in Maine. The International Codes Council's 2015 International Energy Conservation Code (IECC) has approved CLT under its heavy construction timber classification. Maine's Technical Codes and Standards Board are currently working on the adoption of it in Maine, for commercial structures only, and will likely finish in 2017. Such would apply in towns with greater than 4,000 residents. Officials from WoodWorks (woodworks.org) might help, as its Mark Rivard has presented about CLT, and probably could help educate code enforcement officials. Members of Structural Engineers Association of Maine and researchers at UMaine's Wood Composites Lab would undoubtedly be helpful as well.

Concurrently, case studies could be compiled and documented, along with interviews of practitioners who've worked with this type of construction. Architects and engineers, who are already incorporating this type of building could help facilitate this discussions with local officials.

- **DESIGN COMPETITION**

Administer and promote a design and construction contest featuring a building using as much Maine and New England regional wood products as possible, including its insulation and heating systems. Such a showcase could unite the various elements of the forest products, designers, construction, conservation, researchers, and policy-makers. Such a project would undoubtedly benefit from and illustrate the value and benefits of a building code that approves of wood construction for mid-story, light municipal, or even affordable housing. Such a contest might be modeled on the U.S. Dept. of Agriculture's timber innovation program, including its U.S. Tall Wood Building Prize Competition. The specifications of the contest might even include an educational job training function in both the manufacturing and construction fields.

- **STATE-WIDE FOREST PRODUCTS DIRECTORY**

Create and/or expand a directory of local wood products, for use by architects/building specifiers, homeowners, and builders/manufacturers. Landowners, mills, and lumber suppliers should be encouraged to establish a supply chain to track the wood from stump to shelf, to ensure it is being locally sourced. A complementary aspect of compiling and updating a directory might be suggestions of products that architects/building specifiers, homeowners, and builders/manufacturers wished were available, such as locally produced CLT and/or high performance windows, as a means of encouraging additional innovation and use of Maine wood.

INITIAL IMPLEMENTATION EFFORTS, 2017-2018

The LWW partners believe that the following initiatives represent the best opportunities for us to begin promoting and implementing some of the suggestions outlined above. Specifically, we intend to take immediate advantage of some of the relationships that the white paper process helped create, specifically as they relate to better integrating and informing architects and builders of Maine-made wood products that are available, while also promoting Maine's current-use property tax programs. Specifically, we would like to focus on the following:

Develop a professional network and product and service directory of Maine-made forest products and services.

- Design a web-based directory of sustainably produced Maine-made building materials and supply-chain providers while researching long-term hosting and funding opportunities, with an anticipated January 2018 launch.
- Facilitate and host a trade show, including 15 to 20 Maine-made wood product manufacturers, aimed at architects and builders. The show would also provide a forum for others to share their efforts on related topics.

Promote land conservation by educating and encouraging landowners to enroll their land in one of Maine's current-use property tax programs.

- Coordinate and facilitate meetings for landowners, real estate agents, legislators, and municipal officials, hosted on properties currently enrolled in one of the tax programs or owned by land trusts or governmental entities.
- Create and widely distribute print and electronic promotional materials about land conservation options.

Utilize the excellent connections that many LWW partners have with certain Maine manufacturers to become participants in the LWW effort.

- Encourage LL Bean to offer a marketing agreement to the winner of an LWW-sponsored design competition for a functional wooden consumer item.
- Partner with at least one Maine furniture manufacturer/designer to assess challenges and opportunities for sourcing Maine wood for products that are currently built with wood procured from outside of the state.
- Support Kennebec Land Trust's 'green burial' program by identifying and incentivizing a local manufacturer of simple wooden coffins.

CONCLUSION

Local Wood Works member organizations are committed to forestland conservation and rural economic development. We want to ensure that Maine's forested landscape remains diverse, economically rewarding for land owners, and ecologically sound. We feel that by promoting sustainable and expanded use of wood within our local communities that we can both conserve and utilize Maine's forests. By so doing, those same woods will ensure our way of life and nurture Mainers' sense of self.

***LOCAL WOOD WORKS – History, Partners and Values**

Local Wood Works has been possible through the generous support of the Elmina B. Sewall Foundation and is linked with its Healthy People Healthy Places program.

In 2009, The Kennebec Land Trust (KLT) approached the Maine Forest Service (MFS) looking for opportunities to collaborate on the conservation of Kennebec County's forests. The Kennebec Land Trust is focused on conserving forestland for its ecological, recreational, and community values. The Maine Forest Service supports and advises state and private woodland owners and foresters in the sustainable management of publicly and privately owned woodlands.

Later in 2009, KLT and the MFS established the Kennebec Woodland Partnership (KWP) to promote a landscape-level approach to forestland conservation in Kennebec County. KWP ultimately partnered with 13 organizations to promote forest land conservation projects that support the region's woods products, tourism, and recreational economies and protect water quality, wildlife habitat, scenic resources, and quality of life.

Local Wood WORKS, a project of the Kennebec Woodland Partnership

In 2013, KLT, KWP, and three statewide partners (Coastal Enterprises, Inc., Maine Coast Heritage Trust, and GrowSmart Maine) launched Local Wood WORKS (LWW). The Nature Conservancy and the Northern Forest Center signed on as partners in 2015. The shared mission of the Local Wood WORKS partners is to advance forest-based local economies and support the long-term conservation and sustainability of Maine's woodlands.

On November 14, 2014, the LWW partners hosted Maine's first ever Local Wood Works conference in Augusta. Over 120 people from across the Northeast gathered to engage, discuss, and learn about local wood economies. The conference featured success stories from businesses that thrive from Maine's forests in the logging, processing, fuel, home building, and fine wood working industries; and group discussions with business leaders, policy makers, landowners, and researchers on how best to improve and grow the local wood economy.

We use the term "local" in a broad sense, (e.g., Maine, New England, the Maritimes), and our partners have committed to promote:

- Sustainable forestry
- Land stewardship
- Strong and resilient local economies
- Conservation of both working woodlands and ecological reserves
- Reduced energy consumption and transportation costs based on local products
- Support for landowners, loggers, processors, manufacturers, and consumers

In 2016, LWW partners met with groups of important stakeholders to identify viable collaborative pathways for an enhanced local wood economy in Maine and committed to producing this white paper, outlining concrete ways to progress along those routes. The groups will then identify who will take responsibility for their implementation. Though we will report on what we learn, our primary objective is move the process, by motivating individuals, businesses, and organizations to understand their role in a local wood economy and project how to make it more vibrant.

2016 Sector Meetings attendees and LWW participants

In early 2016, LWW convened five listening sessions for representatives from across the state and region, from multiple economic sectors, to discuss challenges and opportunities for Maine's local wood economy. We thank all the participants for their time, interest and commitment to this initiative. See below.

Tom	Abello	The Nature Conservancy
Jane	Arbuckle	Maine Coast Heritage Trust
Andy	Arey	Arey Logging
C.D.	Armstrong	Deering Lumber
Gary	Balkhow	forestry consultant
Henry	Banks	Hiram Works, LLC
Amanda	Beal	American Farmland Trust
Naomi	Beal	PassivhausMAINE
Sue	Bell	Kennebec Land Trust
Jerry	Bley	Creative Conservation
Harold	Burnett	Two Trees Forestry
Lee	Burnett	ForestWorks! Maine
Erik	Carlson	C&L Forestry
Dan	Corcoran	North Woods Real Estate
Kris	Cornish	Maine Wood Products Assc.
Russell	Coulter	Hancock Lumber
Julie	Davenport	Sappi North America
Tom	Doak	Small Woodland Owners Assc. of Maine
Eldon	Doody	Mid-South Engineering
Mark	Doty	Weyerhaeuser
Jeff	Easterling	New England Lumber Manufacturers Assc.
Russell	Edgar	UMaine Composites Lab
Sarah	Fuller	Kennebec Woodland Partnership
Odette	Galli	Cribstone Capital
Chryse	Gibson	Oaktree Development
Alec	Giffen	New England Forestry Foundation
Glen	Gurney	PalletOne
Werner	Hofmann	Stantec Architecture
Sherry	Huber	Maine Tree Foundation
Lloyd	Irland	The Irland Group
Ryan	Kanteres	Scott Simons Architects
Theresa	Kerchner	Kennebec Land Trust
Ken	Laustsen	Maine Forest Service
Robert	Lilleholm	UMaine - School of Forest Resources
Amanda	Mahaffey	Forest Guild
Spencer	Meyer	Highstead
Tracy	Moskowitz	Midcoast Conservancy
Jim	Nicols	Nicols Bros. Logging
Bill	Patterson	The Nature Conservancy

Bob	Perschel	New England Forestry Foundation
John	Piotti	American Farmland Trust
Dave	Publicover	Appalachian Mountain Club
Jim	Reuter	SRL Architects
Shannon	Richards	Caleb Johnson Architects + Builders
Jacob	Roberson	Interphase Energy
Roberta	Scruggs	Maine Forest Products Council
Andy	Seymour	Wright-Ryan Construction Inc
Tom	Shafer	Maine Heritage Timber
Scott	Simons	Scott Simons Architects
Heather	Spaulding	MOFGA
Eben	Sypitkowski	Baxter State Park
Julia	Tate	Scott Simons Architects
Scott	Upham	Cribstone Capital
Barbara	Vickery	The Nature Conservancy
Terry	Walters	Robbins Lumber
Warren	Whitney	Maine Coast Heritage Trust
Chris	Williams	Becker Structural Engineers
Mike	Wilson	Northern Forest Center
Ted	Wright	Professional Logging Contractors of Maine
		Bethel Area Chamber of Commerce