Emerging Innovation in Compact Development

Continue outreach to Towns about Zoning Options

Incentivize Compact Developments with Biomass

Continue Outreach to Towns about Zoning Options

As natural resource conservation codes are developed and gain traction, municipalities will need consulting to assist in the zoning language of the bylaw and help facilitate dialogue. A "circuit rider" consultant that specializes in zoning could help interested towns write a by-law. The consultant would also be in charge of hosting educational forums in each town, where town officials and residents could learn about the implications of model codes and variations. Presently, Jeff Lacy of the DCR Division of Water Supply Protection works in this capacity for towns in the Quabbin watershed. Mass Audubon is also currently an active resource and advocate. Another full or part time consultant would be beneficial to have.

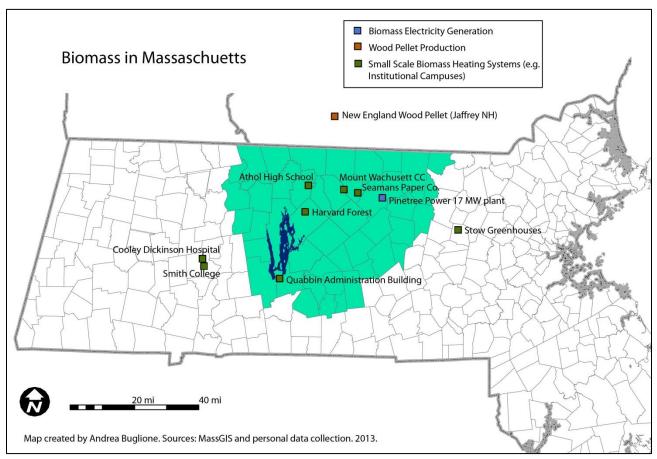
Example by-laws are currently hard to find because the concept is relatively new, but the state's Executive Office of Energy and Environmental Affairs has created a model bylaw and guidance materials based on best practices so far. An OSD/NRPZ guide is available at <u>http://www.mass.gov/envir/smart_growth_toolkit/bylaws/model-osd-nrpz-zoning-final.pdf</u>. At the same time, it is important to discourage a cookie cutter approach to the zoning. Each town has different land use patterns, community goals, demographics, and political will, and open space bylaws can be flexible enough to address that reality.^{xliv}

Incentivize Compact Developments with Biomass

Biomass as a viable (and sustainable) energy source for New England has been a hotly contested issue in recent years. For large-scale power plant energy production, biomass is not necessarily very feasible or environmentally-friendly. However, a number of reports, including the Manomet Biomass Sustainability and Carbon Supply Study^{xlv}, have suggested that biomass is appropriate for small, localized wood fuel boilers in rural communities. Supplementary reports indicate that the total amount of low-grade wood that can be harvested sustainably from Massachusetts' public and private forests is not quite enough to make it a *major* energy source statewide – we fully support investment in other renewables like solar, wind, and geothermal – but that wood fuel is very sustainable for heating homes, schools, and campuses. Creating a market for low-grade wood would also help sustain the forestry economy and encourage more sustainable harvesting practices.

- Wood fuel is generally cleaner to burn than oil
- Wood fuel is renewable
- Investing in biomass helps money recirculate in the local economy and helps maintain jobs in the forestry sector.
- Wood pellets cost homeowners half as much as heating oil

Throughout Europe and increasingly in the United States, compact developments (residential communities, school campuses, etc.) save on energy bills by using a centralized "district heating" system. As far as biomass in Massachusetts is concerned, the Greater Quabbin region is home to most of the community biomass, as seen in the map below.



The green area on map represents the Conservation Investment Zone.

Mount Wachusett Community College. In 2002, Mount Wachusett's main campus in Gardner, MA, had an 8 MMbtu boiler unit installed to replace an all-electric heating and cooling system, which was funded in part by the US Department of Energy and the Massachusetts Department of Energy Resources. By switching from heating oil, the college saves about \$270,000 dollars per year.^{xlvi}

Quabbin Administration Building. In 2008, the Department of Conservation & Recreation's Quabbin Administration complex installed a boiler that burns about 350 tons of wood chips per year and displaces 85% of the fuel oil previously being used. The total cost of installation was \$480,000, with the payback period at 6 years. Initial funding was provided in part by the State Department of Energy Resources.^{xlvii}

New residential, commercial, and institutional compact developments are ideal for district biomass heating systems. The Working Group supports measures to make community-scale biomass heating viable in the region.

Incentives for developers to include biomass heating systems could include density bonuses and provisions to allow more flexibility in the design process. Additionally, the Community Wood Energy Program, a federal grant program that provides local governments with money to help cover installation costs of efficient biomass heating systems, could enable an eligible town to use a proposed compact development as a pilot community-scale biomass project.



RURAL ECONOMIC DEVELOPMENT

The Case for Rural Economic Development + Conservation

Conserving the rural landscape and promoting the regional economy are related endeavors. Here are some reasons:

- The value of woodlands and thus the local economy is related to the demand for locally harvested wood.
- Awareness is growing that land conservation can contribute to a sense of place and help a community reduce overall cost of services.^{xiviii}
- Tourism infrastructure needed to sustain local economies also helps draw attention to protected recreation land. As the tourism strategy for the region is largely based on the availability of natural resource amenities, ensuring the protection of the landscape is vital.
- In addition to the more obvious outdoor activities tourists enjoy through the forested landscape (hiking, boating, cross-country skiing), growing trends in immersion tourism (farm-stays, culinary adventures, pick-your-own, historic tourism) will rely on a well-preserved and well-marketed rural landscape.

One observation about the future of this region's economic and tourism draw is that in order to move forward, we are, more and more, looking toward the past to find some of the answers. As will be explored in this chapter's sawmill education center idea and immersion tourism proposals, there is much to gain from re-orienting ourselves to sustainable living models from the past. Agritourism is a perfect example of the growing need people see in learning the ways of the past, embracing simplicity and increased physical activity. People desire an escape from technology and chance to reconnect with the natural world.

Here is why more people will visit, retire, and raise their families in the Greater Quabbin:

- proximity to major metropolitan areas
- clean air and water; availability of local food from local farms
- beautiful scenery and unlimited opportunities for outdoor recreation
- quaint towns
- relative low cost of living
- emergence of wood and other resource-based enterprises will add employment opportunities
- opportunity to develop compact communities that provide an alternative to the suburban neighborhoods typical of other parts of Massachusetts
- improved internet services for home-based businesses

Through this list of existing innovation and new recommendations, we hope to underscore the ways that conservation and economic development can better work together.

Existing Initiatives in Rural Economic Development

Commonwealth Quality Program

The Commonwealth Quality Program is a brand new state certification created to market products grown or produced sustainably in Massachusetts. Sectors include aquaculture, produce, and forestry. In order to qualify for the Commonwealth Quality Program (CQP) seal, participants must adhere to the Commonwealth's set of Forestry Best Management Practices, among other requirements. This means that the forester and logger must work together to create a comprehensive plan for harvesting that considers long-term impacts on the environment. These forest products need to be



Map from <u>http://www.mass.gov/agr/cqp</u> showing the 11 Forest Sector participants in Massachusetts.

grown and harvested according to Massachusetts Forest Cutting Practices Act guidelines (also known as Chapter 132), which hold forestry to high standards of protecting natural resources and cutting timber selectively and improve the residual forest. Local wood that is also sustainably harvested has the potential to positively impact the regional economy as well as the integrity of our natural systems

"Purchasing Massachusetts wood products not only supports local businesses, it connects us with the land and helps us understand the significance of responsibly managing it"

Commonwealth Quality website, 2013

There are 11 CQP Forestry Producers currently enrolled in the program,

including a handful of producers in the Greater Quabbin. According to one of the program managers, participants "have been happy to be involved and feel that their businesses have gotten good exposure to consumers that they wouldn't have been able to achieve on their own."^{xlix} Yet a few realities of the business make it difficult for other forest producers to take the leap and join the program. Some potential participants are businesses that have established wholesale trade markets outside of the state, in which the CQP seal would not be of much use. Also, the industry is traditional and can be slow to change. Some feel that requirements like record keeping would be burdensome. Others feel that their company name and reputation is all they need to be successful in the business. As the program becomes more established, however, more producers involved in the supply chain– including logging businesses and finishing mills - will likely be inclined to join the Commonwealth Quality Program.

Red Apple Farm: Model for Conservation and Tourism

Red Apple Farm is an agritourism business that truly captures the essence of the economic development + conservation synergy. A family-owned orchard for more than 100 years, with a recent emphasis on retail activity, it has become a local landmark and destination that repeatedly attracts people from the Boston area and beyond. With activities like apple picking, hayrides, festivals, hiking, and even "dig your own" potatoes, Red Apple Farm provides the quintessential New England country experience that we all enjoy. The farm is 100% solar and wind powered and sells local wood products.



Bill Rose, left, and his son Al Rose, outside of the Red Apple Farm store.

Many of the farm's upgrades were made possible through the sale of an Agricultural Preservation Restriction (APR). The APR program, initiated in 1979 and administered through the MA Department of Agricultural Resources (DAR), permanently protects eligible farmland by paying for the fair market value of the development rights. Eligible lands must contain prime farm soil types.

Red Apple Farm received payment for the development rights on 70 acres of farmland through the APR program. Then, in 2007, the Rose family protected another 103 acres by donating a Conservation Restriction to Mount

Grace Land Conservation Trust. The APR and the tax benefits of CR donation helped secure the financial future of Red Apple Farm and allowed the Roses to invest in the farm's tourism amenities. Other farms have used conservation proceeds to improve their business. Johnson's Farm in Orange, MA is one example.

Red Apple Farm has also benefited from the USDA's WHIP (Wildlife Habitat Incentive Program) and EQIP (Environmental Quality Incentives) grant programs. The landowners are in the process of creating an early successional habitat to attract certain species to the area. Through cost-share and technical assistance, this program allows landowners like the Roses to conduct habitat enhancements on their property and take an active role in land stewardship.

Farmland and forest conservation – plus tourism in these landscapes – are well integrated. Most farm properties are mostly forested.

From Forest to Fuel: Incentives for Household Biomass Heating

Biomass has potential to improve the economic viability of the region's woodlands. While large-scale biomass power plants are unpopular, the state's leading experts on forestry and energy all agree that using low-grade wood for community-scale biomass heating is important as a viable energy source.¹ Section II, Compact Development, illustrates the number of biomass heating systems in campuses and industries in the Greater Quabbin.

Wood pellets create the same amount of heat for half the price of oil.

Mass EOEEA

Since the passing of the Green Jobs Act of 2008, the Commonwealth has piloted several grant programs that provide assistance for homeowners wishing to upgrade to more efficient, wood-based heating systems. The **Small Pellet Boiler Pilot** grant awarded funding for high efficiency wood-pellet boilers for new home construction (or major retrofits). The improved boiler program promises rebates up to \$15,000 for the purchase of new boilers (which covers roughly 75% of the boiler cost including installation).^{II} Concurrently, the **Commonwealth Woodstove Change-Out Program**

offers incentives for homeowners to trade in their older woodstoves for higher-efficiency and cleaner burning stoves (\$2,000 voucher for low-income families, \$1,000 for other families).^{III} These programs are a good start for incentivizing modern biomass, and their popularity shows the increasing demand for wood pellets and small-scale biomass heating systems.

The Neighborhood Forestry Project in Warwick, MA

The Greater Quabbin landscape is highly parcelized and fragmented, with many thousands of private landowners owning small pieces of the forest. Statewide, approximately 31,000 landowners own 1.8 million acres of forest in parcel sizes of ten acres or more,^{liii} and many more thousands own forestland in parcels under ten acres in size. With forested parcels of this small size statewide and in the CIZ landscape, implementing sound forestry becomes more and more difficult.

Particularly on small parcels of ten acres or less, the cost of engaging a licensed professional forester is more expensive. The cost of hiring a timber harvester is often prohibitive: a logger has fixed costs related to moving equipment to a site, and preparing a site for harvesting. The value a landowner might receive from selling harvested trees cannot overcome the costs of engaging these forestry professionals.

Mount Grace Land Conservation Trust's Neighborhood Forestry Project set out to address some of the barriers to forestry on small parcels. The goal of the Project, funded in part by a US Forest Service grant, was to enable landowners to get forestry work done on their small parcels by creating an incentive for foresters and loggers to work with the landowner. By aggregating or packaging a number of smaller forested lots into a joint harvesting effort, the number of acres of woods available for management increases, thereby increasing the interest of forestry professionals like timber harvesters to do the work. The Project looked to create an additional incentive to forestry professionals by building the joint harvesting effort around one large forested "foundation" parcel that was viable in its own right as a forestry project.

Implementing the Project proved challenging initially. First, the Project proponents faced the difficulty of finding a group of landowners living close enough together with a similar interest in actively managing their woods. Second, foresters were hesitant to participate because of the likelihood of uncompensated hours of work from investigating multiple small parcels and managing multiple landowners.

Eventually, a start-up grant of \$1,000 offered to foresters encouraged participation. The chosen forester knew five landowners of small acreage who hoped to do forestry on their land. Together with Mount Grace Land Conservation Trust's connections, the



number of possible landowners increased to eight. All were within two miles of a 65-acre conservation area owned by Mount Grace that would serve as the foundation parcel for the neighborhood project. Eventually, three landowners owning parcels of four, five, and fifteen acres agreed to participate, with another landowner of nineteen acres agreeing to provide a landing and access for the Mount Grace parcel.

As of May 2013, the forester is soliciting timber harvesters to participate in the joint project and the actual management of the land is anticipated over the next twelve months. The five-acre parcel is the most marginal, with most of the landowner's management goals more appropriate for an arborist. But a small stand (seven trees) of white pine may be harvested, the sale

of which will cover the timber harvester's expense. The forester will mark 20 hardwoods best suited for harvesting by the landowner to provide the one-to-two cords of wood per year for the homestead.

The four acre parcel contains a half-acre stand of white pine that will open up more solar to the garden, field and home once harvested. Harvesting this stand will likely pay for the forestry professionals expenses and possibly leave some remaining funds for the landowner. The fifteen-acre parcel has good white pine crowded by hardwood. A cordwood cut of the hardwood will provide some wood to heat the landowner's home and business, with the sale of the remaining cordwood paying the professionals. Harvesting on the Mount Grace property could likely happen on its own. But the forester has stressed that the other parcels would not be viable projects without grouping them in the project.

Rural Tourism: Existing Capacity

In addition to some examples previously cited (Red Apple Farm), the Greater Quabbin has a solid foundation of tourismrelated initiatives, businesses, and organizational resources dedicated to securing the region as an eco-destination. The following is a partial list of tourism-based initiatives, businesses, and opportunities in the region:

Popular Tourist Attractions (just a few examples)

Outdoor Recreation	Visit and See	Stay
Quabbin Reservoir and Reservation	Harvard Forest & Fisher Museum, Petersham	1830 Elijah Haven Homeplace, Ashburnham
Tully Trail and Tully Lake	Red Apple Farm, Phillipston; Hamilton Orchards, New Salem.	Hartman's Herb Farm, Barre
Mid-State Trail	Antique shops, Athol & Orange	Stevens Farm B&B, Barre
New England Scenic Trail	Johnson's Farm & Sugarhouse, Orange	The Jenkins Inn & Restaurant, Barre
Miller's River Blue Trail: Athol to Orange	French King Bridge, Erving	Harding Allen Estate B&B, Barre
Walnut Hill Tracking & Nature Center, Orange	Leverett Peace Pagoda	Dragonfly B&B, W. Brookfield
Skydive at Jumptown, Orange	Performing Arts at Barre Players Theatre	Brookfield Inn B&B, Brookfield
Vast network of state and town forests for hiking, mountain biking, and camping	Petersham Craft Center	Centennial House, Northfield
Otter River State Forest & Lake Dennison, Winchendon	1784 Meetinghouse, New Salem	Colonial Hill Alpaca Farm + B&B, Petersham
Crimson Acres, horseback riding, Orange; New England Equestrian Center, Athol	Cultural Center at Eagle Hill, Hardwick	Clamber Hill Inn & B&B, Petersham
Brooks Woodland hiking, Petersham	Gardner Ale House, Gardner	Winterwood at Petersham B&B
Fox Valley Wildlife Sanctuary, Phillipston	Colonial Hill Alpaca Farm, Petersham	The Harrington Farm B&B, Princeton
Wachusett Mountain Ski Area, Westminster	The Montague Book Mill, Montague	Bona Vista Farm B&B, Winchendon

Institutions and educational centers

The Farm School & Maggie's Farm, Orange/Athol	Mount Wachusett Community College, Gardner
Seeds of Solidarity Farm & Education Center, Orange	Fitchburg State College, Fitchburg
Harvard Forest, Petersham	The Village School, Royalston
The 5 colleges in Amherst and Northampton	Earthlands Sustainable Living Institute, Petersham

Unique businesses/ventures

Dean's Beans, organic coffee roasters, Orange	North Quabbin Community Co-op
North Quabbin Woods Gifts, Orange	Western Mass Food Processing Center, Greenfield
Orange Innovation Center, Orange	Trail Head Outfitters & General Store, Orange

Organizations working toward rural economic development and outdoor promotion

North Quabbin Woods	Quaboag Valley Community Development Corporation
North Quabbin Trails Association	North Quabbin Community Coalition
North Quabbin Country Roads	Johnny Appleseed Country (formerly Johnny Appleseed Trail Association)



The River Rat Race along the Millers River draws tourists from across the Northeast.



The Garlic & Arts Festival in Orange attracts thousands of tourists each October.

Emerging Innovation in Rural Economic Development



8 Creating Demand for Local Wood Products

Massachusetts exports 98% of its raw wood products. Some of the reasons wood producers are exporting to other states and abroad – and why we're importing so much finished wood from outside the state – include:

- Lack of a strong value-added market locally
- Consumer preferences for non-native tree varieties prevail; for example, the dark Mahogany look is in style and is rot-resistant
- Cheaper to buy from overseas sources (like Indonesia)
- Fewer sawmills to process wood in state because it is becoming less economically viable; Massachusetts has lost 50% of its sawmills in the last 20 years
- Wood production (from forest to crown molding, for example) is a bit more complicated than food production, so it's harder for the public to get behind a concerted Buy Local Wood movement

According to the director of the former Massachusetts Woodlands Cooperative, Suzanne Webber, the two most effective strategies for expanding wood markets and improving forest management are consumer education about local forest resources and tangible small-scale biomass production.^{liv}

The follow are five categories of innovation in creating demand for local wood:

1. Capitalize on existing niche markets. Since Massachusetts will most likely not be competitive in the "2 x 4" lumber market, we should focus marketing on the products we are good at producing with local wood:

- Timber framing
- Architectural millwork (cabinets, molding decking, etc.)
- Specialty wood products (artistic tabletops, furniture, bowls, etc.)

2. Promote more local wood in the construction industry. While not all of the trees common to Massachusetts make for good construction materials due to a relative tendency to rot and fluctuating consumer preferences, there are a number of species that do well for timber framing, flooring, and exterior siding.



- Educate contractors, architects, and homeowners about using local wood. Architects don't typically think about where the wood they use comes from.^{IV} Homeowners and architects need more *targeted outreach* on buying local wood. The Commonwealth Quality forest products participants have seen a boost in local wood sales thanks to knowledge-sharing events like the ArchitectureBoston Expo. Here architects and contractors learn that specifying locally grown wood for construction projects is the first step in increasing the prominence of local wood in the industry.
 - Continue to Sponsor events with the Home Builders Association of Massachusetts. Continue to promote the local wood concept at the ArchitectureBoston Expo
 - Sponsor smaller outreach events in different parts of the state specifically addressing local wood in construction and architecture, by partnering with the Massachusetts Forest Alliance, among others
- Invest in a thermal rot-resistant wood treatment facility or a Cross-Laminated Lumber facility these are
 potential opportunities to use New Markets Tax Credits
 (see page 42).

3. *Educate consumers.* Through CQP and informational materials about the process of "tree to table," more people will become aware of the importance of buying local wood. Part of this is about changing perceptions. For example, Michael Humphries (Michael Humphries Woodworking) deals with customers that want custom cabinetry in a certain color because of design trends, which means that it might not be available in a local wood option. Yet, using native wood and stain finish can produce virtually the same effect. At the same time, the more rugged "character grades" of wood are becoming more popular among consumers who desire more rustic looking floorboards, for example, but there are architects that don't like "blemishes."^{IVI} More broadly, we might be able to educate consumers by:

In the early stages of developing these campaigns, it was common to remind consumers of the many benefits of the farm landscapes that produce food. It was necessary to list these seemingly obvious benefits because in the last one or two generations citizens had disconnected from the land and simply stopped thinking about where their food comes from. In developing a "Buy Local Wood" commitment within the region it will be necessary to re-educate consumers about the potential flow of resources from well managed forests, and connect citizens to the forested landscape.

Suzanne Webber, Former President of the MA Woodlands Cooperative, 2009

- Making native wood (blemishes and all) an attractive option
- Reminding people of the historical importance of forestry in the regional economy
- Sponsor "local wood construction" tours
- Distribute informational brochures with info graphics describing the tree-to-product process
- Sponsor face to face events to meet and learn from wood producers in person^{lvii}





4. Expand market for community-scale biomass. Harvesting low-grade wood from the region's forests has a role in improving the stock of high-quality trees by allowing the latter to grow straight. However, we need a stronger market-driven imperative to selectively harvest low-grade timber – and biomass is a great way to use low-grade wood. According to Suzanne Webber, expanded markets for low-grade wood are essential to the economy and forest health because during the past century, "forest regeneration over former pasture land has evolved crowded stands of low-quality trees which need to be thinned. Without local markets to sell the high volumes of low-grade material into, local mills cannot afford competitive bids and so are unable to acquire the high quality saw logs for which there is a market."^{Iviii} Thus, the markets for low-grade wood (for biomass) and high-quality wood are both important and related.

 Expand incentives for wood heat. One way to help sawmills stay economically viable is to expand the market for biomass. As discussed previously, the Commonwealth has a number of assistance programs available for Massachusetts homeowners. However, to get a critical mass of landowners to leave behind their oil-based heating systems, more work is needed. Using wood harvested in the region for home heating is much more economically and environmentally sensible than using oil extracted abroad.^{lix}

The Model Neighborhood Project (Berlin, NH) is a project organized in part by the Northern Forest Center in New Hampshire. It is similar to Massachusetts programs except that it involves the participation of private sector sponsors. Over the last few years, over 23 new pellet boilers have been installed in Greater Berlin, NH, with 40 total eligible homeowners. Financial assistance comes from local and state banks, timber companies, the State of New Hampshire and philanthropic supporters like Stoneyfield.^{Ix} Most of the assistance is in the form of direct cash subsidy from the aforementioned sponsors. The other component, however, is low-interest lending (1% interest) from banks and community development entities.

Besides public-relations incentives, private companies have an incentive to contribute to the fund through a tax credit program. The tax credit amount awarded is equal to 75% of the cash investment. Federal tax benefits on top of the tax credit sweeten the deal.

Communities in the Greater Quabbin could use the Berlin, New Hampshire model as inspiration to get more homes retrofitted with new high efficiency pellet boilers. The public-private model, especially when community-driven, could be an effective supplement to existing Commonwealth energy programs.

• Community biomass. Athol High School in Athol, MA is an example of an institutional facility that has been utilizing wood heat for decades now. To be more proactive about connecting community facilities with biomass, we ought to look to Vermont, a pioneer in community-scale biomass. The Vermont Fuels for Schools program is part of the reason that 30% of the state's public schools use wood fuel for heating. They have found that using wood helps money re-circulate in the local economy, and it is more cost-effective than conventional modes of heating. According to the Vermont Fuels for Schools Factsheet, "Large schools usually find the combined costs of installing fully automated wood systems, the bond payment, and the wood fuel far less than what they were paying using oil, gas, or electric heating."^{IXI} Vermont has another program, the Vermont Family Forests, which helped put in place the Community Supported Biomass program. Like an agricultural CSA (Community Support Biomass), participants pledge to buy monthly shares of firewood.

A partnership between town forests and land trusts to use wood harvested on those properties for community biomass initiatives would be a win-win for municipalities. When all is said and done, increasing demand for low-grade forest products helps loggers stay in business and improves forest health in the long term. As literature on community

biomass suggests, "increased use of energy from forest biomass has the potential to increase the value of low grade wood to the point where forest owners can afford good management practices and loggers can earn a living serving both the timber and biomass markets."^{Ixii} In addition to economic benefits for private forest landowners, towns and land trusts could gain extra income with the expansions of the low-grade wood for biomass market. Using wood from nonprofit land (land trusts) and town-owned forests for heating schools – and other municipal buildings – would be a true partnership in community biomass.

5. Encourage business participation in the Commonwealth Quality Program. Currently, 10 out of the 11 participants in CQP are sawmills. We ought to encourage more wood producers in *all components of the supply chain* to join the Commonwealth Quality Program. In order to make a true impact on the local wood market, more businesses throughout the supply chain are needed to participate in the program. For example, logging businesses, kiln operations and finishing mills are eligible participants. To really ensure that the finished wood products we're buying (at Home Depot or the lumberyard or other retail locations) are 100% Massachusetts grown and produced, it will be necessary to certify more than just sawmills.

6. Change perceptions about loggers and foresters. A thriving forest economy requires loggers and foresters that are well-



trained, well-paid, and well-respected. In addition to education and training, the logging industry – and ultimately the forest economy – would benefit from some of the following interventions:

Equipment – is a large up-front expense for loggers.
 However, the right equipment can help reduce workplace safety risks as well as reduce stand damage. A small grant program for loggers, to help procure new equipment, might be an idea to explore further.
 Marketing – loggers need to market themselves better, especially with an online presence. CQP enrollment for logging

especially with an online presence. CQP enrollment for logging businesses can offer a great deal of marketing assistance.

In summary, there are a number of approaches to educate consumers – particularly architects, contractors, and homeowners – about the importance of buying locally grown lumber. These coinciding campaigns may need a centralized marketing campaign, which could be coordinated by the state's Commonwealth Quality Program and facilitated by groups such as the Massachusetts Forest Alliance and regional land trusts like Mount Grace. In addition to permanent conservation, one of the best ways to protect our region's forest assets is to keep the forest economy productive.

New Possibilities in Rural Tourism

The connection between conservation, economic development and rural tourism is becoming clearer. More dollars spent in the Greater Quabbin can help bolster land conservation initiatives, and vice versa. The following recommendations are based on the proposition that the Greater Quabbin brand itself as a destination of **eco-tourism** and **immersion tourism**.

Eco-tourism is generally defined as a form of tourism that depends on and celebrates fully intact ecosystems. Outdoor adventure-based excursions, like white-water rafting, zip-lining, hiking, and camping are examples we often think of that meet the definition of eco-tourism.



The Working Group proposes to highlight potential for better marketing opportunities outdoor adventure, but also the hotels, restaurants, institutions, and other supporting amenities that will benefit the region. Immersion tourism spans from culinary festivals to overnight educational farm-stays to high-adrenaline adventure tourism. Educational immersion experiences (farm-stays, B&B in historic, culinary etc) could be a particular brand of eco-tourism that are suited to the region.

Red Apple Farm in Phillipston is an example of a tourism-related business that really takes advantage of the North Quabbin's proximity to metro areas like Worcester and Boston. During apple and pumpkin seasons, people frequently drive from Boston just to experience the New England countryside at Red Apple Farm. However, the lack of hotel accommodations and supporting businesses (restaurants) limits the extent to which tourists can stay in the region longer.

Parts of the Greater Quabbin are better served by tourism infrastructure than others. The North Quabbin, for example, seems to be overlooked as a real tourist destination, even though it has the natural resources, conservation land, and character to be a potential hot spot for tourism in the future. While the Quaboag Valley and Berkshires have a well-established tourism economy, as do Southern Vermont and eastern parts of Massachusetts, northern Worcester County and parts of Northern Franklin County are in a tourism "gap."

The Johnny Appleseed Country is a recently formed Regional Tourism Council. It has traditionally served the Fitchburg and Gardner areas, but is interested in making a bigger impact in the Athol/Orange and North Quabbin areas. Johnny Appleseed has suggested a more cohesive alliance form between the Franklin County tourism and Johnny Appleseed in Worcester County.

According to experts like David McKeehan of Johnny Appleseed Country, adventure-immersion tourism is what many people now seek and expect from a rural destination. In both the fields of psychology and tourism, emerging studies point to the growing need for new types of connections between us and the natural world. In Richard Louv's *The Nature Principle*, the author argues that exciting new ways to experience nature are emerging: "sensory immersion in nature rather than spectatorism; doing outdoor sports in unusual ways and unexpected locales; doing more than one outdoor activity at the same time (fishing plus birding = bishing...); combining recreation with conservation ... And most of all, unplugging the iPod and opening one's senses to the full experience."^{Ixiii}

Not only are immersion activities good for the tourists, they're good for the business owners and the greater community. For example, farmers might generate extra income by providing "hands-on business retreats, nature therapy, or education and rural experiences for young city

