Section 4: Working Landscapes: Farms and Forests

Working landscapes are integral to efforts to conserve critical habitat and promote community preservation. In the classic conservation biology paradigm, ecological reserves are surrounded, in concentric circles, by sustainably managed farms and forests and progressively more intensive human uses such as residential and commercial development. The core-buffer strategy also reflects economic realities: we can stretch scarce dollars by buying a limited amount of the most essential reserves and greater amounts of working landscapes through less expensive easements that restrict development. In other approaches, farms and working forests are valued for their intrinsic environmental benefits, for example, creating habitat for some wildlife, providing areas for aquifer recharge and floodplain storage. Farms and forests also contribute to rural community preservation by creating or retaining jobs and wealth, ensuring food and economic security, and helping to maintain the cultural and aesthetic quality of life.

Farming

Farming: An Overview of State and Regional Trends

Massachusetts has a total of 6,100 farms and 520,000 acres owned by farmers. About 65 percent, or 312,000 acres, of this farmland is west of Worcester, with a majority in the Connecticut River Valley, which comprises one of the largest concentrations of “prime” and “state important” agricultural soils in New England.

The loss of farms is one of the most significant trends facing the Connecticut River Valley, which was cited by the American Farmland Trust (AFT) in 1997 as one of the 20 most endangered agricultural regions in the United States. In Massachusetts, the annual rate of agricultural loss is about 1 percent a year, or 5,200 of 520,000 acres. Nationwide, the U.S. converts more than one million acres of farmland per year due to sprawl and other forms of development.

Though the number of farms has continued to decrease in the U.S. since the 1970’s, in Massachusetts the number of farms increased by 24 percent between 1974 and 1997, the last year for which data is available. The size of farms, however, has dropped by 36 percent from 134 acres in 1974 to 85 acres in 2001. The growth in the number of farms largely reflects the increasing attraction of farming as a way of life but decreased economic sustainability. More people are operating smaller farms as a supplement to other forms of employment. Nearly 47 percent of farmers in Massachusetts have second jobs.
Development pressures and increased costs of operating are claiming many farms, leaving a closing window for further conservation. In western Massachusetts, about 13 percent of existing farmland is protected by Agricultural Preservation Restriction (APR). Another 40 percent is under special tax status, also known as Chapter 61A, but does not assure permanent protection (see Figure 4.1-4.2, Page 55-56).

Farm Retention: Direct Protection Tools

The most popular and direct method of protecting working farmland is the APR. Administered by the State of Massachusetts with assistance from land trusts and the Federal Natural Resources Conservation Service and the Federal Farm and Ranch land Protection Program (FRPP), the APR program allows farmers to obtain needed cash and permanently protect their land from development by selling the non agricultural value of their land to the state. For cash-strapped farmers, this income can help them resist the offers of developers and remain in business. Land trusts play an invaluable role in this process, often helping to structure transactions and provide bridge financing for farmers who often have to wait years for state APR funds. The program’s focus has changed as a result of new Smart Growth criteria developed by the Romney administration, as discussed below.

Another de facto tool is Chapter 61A, which allows farms with at least five acres of land preferential tax treatment based on the agricultural value of the land. Such farms are able to lower operating costs and therefore are usually less vulnerable to development pressures that drive conversion. Under Chapter 61A, towns have a right of first refusal at the time of sale that is assignable to a land trust and thus can create a stumbling block for developers. Though it can be a potential conservation tool, it is hardly a proxy for protection. Western towns often do not have the staff necessary to process the right or defend the process against possible litigation by interested developers.

Farm Retention: Indirect Protection Tools

Protecting farms through APRs is a necessary but sometimes insufficient strategy to ensure agricultural viability. Other measures are often needed to preserve economic health. In fact, the more economically robust the farm sector is in the first place, the less vulnerable it may be to development pressure. One key approach to strengthening farms, therefore is to assist with business planning. Encouraging income diversification is crucial to farmers’ survival through drought and flood years. Indeed, a farm’s survival often depends on diversifying crops, developing an added value business, such as canning or baking, or simply building a farm stand to capture the margin often taken by the middleman.
Under the Agriculture Preservation Restriction program, priorities for protection are determined principally through soil quality and farming block analysis. The latter is based on the assumption that clustered farming communities have the critical mass to generate local markets and sufficient farming inputs, such as hardware supply, machine repair, hay and labor. Outstanding examples include: the Connecticut River Valley; and the eastern and southern Berkshires (see Figure 4.3, Page 57, for a map of Federal Farmland Priorities).

The success of the FVP is hard to measure, but there is anecdotal evidence that the program is helping farms stay in business. Only two of the farms in the program have gone out of business in the last ten years, suggesting that the FVP may have had some impact (or at least has not targeted the wrong farms for assistance). In addition, net income of participating farms last year increased by an average of $18,500 per farm.

Protection Priorities

Under the APR program, priorities for protection are determined principally through soil quality and farming block analysis. The latter is based on the assumption that clustered farming communities have the critical mass to generate local markets and sufficient farming inputs, such as hardware supply, machine repair, hay and labor. Outstanding examples include: the Connecticut River Valley; and the eastern and southern Berkshires (see Figure 4.3, Page 57, for a map of Federal Farmland Priorities).

The AFT also uses soil quality and farming block analysis to decide where to focus its work; however, because it also provides technical assistance, it considers a town’s need for agricultural planning assistance as well.

Farm Viability: Western Massachusetts Shows the Way

Western Massachusetts farmers are making good progress in diversifying and growing their businesses. The graph to the right shows that in the western counties (to the left of the line) there is decreasing reliance on a single agricultural product whereas in the east the opposite is occurring. Combined with the fact that 65 percent of organically farmed acres in the state are in the Connecticut River Valley, an area with only 25 percent of the farmland, western Massachusetts may be well positioned to adapt at least for the present, the modern economic realities of farming.

But while agriculture is headed in a relatively healthy direction in the west, no region is likely to escape the coming generational shift in farm ownership across the nation. In 1997 the average age for...
What Is Being Grown on Massachusetts' Farms?

- Though 43rd among all states in total agricultural production, Massachusetts is 14th in net farm income per farm and fourth in net farm income per acre. This testifies to the innovative and creative response of Massachusetts' farmers to small farm size and increasing development pressures.
- Dairy products lead farm production in Berkshire (46.2 percent of agricultural sales), Franklin (30 percent), and Hampshire (19.8 percent) counties. Nursery and greenhouse products led agricultural production in Hampden (28.9 percent) and Worcester (29.9 percent) counties.
- Apples are the dominant fruit produced in the western counties. Tobacco is also a significant product in the Connecticut River valley.
- Self Sufficiency: Massachusetts comes close to producing all of the fruits that it consumes each year and has a net export on seafood.

Massachusetts farmers was 55 years, an all-time high. Assuming constant ownership, that makes the average farmer 63 today. Many of the farmers do not have children interested in continuing the family business, and without a cadre of new farmers to take their place, many farms are likely to be sold for development. One response has been to link new farmers with farms for sale. For example, the New England Small Farm Institute runs a New England Land Link program that matches interested buyers with farm sellers and also operates a Growing New Farmers program that provides technical assistance to new farmers. Both the state’s APR and the federal FVP seek to keep farmland affordable for new farmers by protecting farms and providing new farmers with management assistance.

Changing Priorities of State Agriculture Preservation Restriction Program

From 1977 to 2003, Massachusetts state government invested more than $126 million to protect more than 500 agricultural properties totaling more than 51,000 acres of farmland. Since 1996, when the FRPP began, the federal government has invested additional millions to purchase easements on 5,897 acres of valuable agricultural land in Massachusetts. The APR program has been one of the few state conservation funding programs to receive increased funding in the last two years. This was largely due to increases in the Federal Farm Bill, which forced the state to match their dollars. In 2003, the federal contribution to the APR was $2.8 million. The federal contribution increased in 2004 to $4.3 million, which was matched one to one by the state for a total program outlay of $8.6 million.

Though it has retained funding during the Romney administration, Smart Growth regulations have brought significant change to the APR program. When Romney entered office, there was a three-year back-
log on APR projects that had been approved but not funded. The administration decided to use Smart Growth criteria to rank two-thirds of the funds so that projects that meet Commonwealth Capital requirements would be funded first. This new prioritization method has taken projects out of their time-honored queue, which was the only assurance a farmer had that their APR would eventually be funded. Land trusts and farmers have not yet realized all the effects of this process, however some land trusts say one immediate casualty may be the bridge financing they traditionally have supplied to farm owners waiting for state funding. With the uncertainty of whether an initially approved project will be funded, bridge loans have become more risky.

Recently, the government expanded the role of Commonwealth Capital in the APR selection by putting in a smart growth filter before farms are accepted into the program. Commonwealth Capital requirements have tended to favor eastern towns with higher population densities and more infrastructure and planning needs, leaving western towns at a loss.

To address these concerns, the AFT has worked closely with the State’s Department of Agricultural Resources to develop a companion application process to govern how the Commonwealth Capital policy would be applied to the APR-program. The resulting APR Municipal Grant Program (APR-Muni) accelerates APR projects that meet certain criteria, encourages communities to implement policies and programs to promote farmland protection. In the state’s words, APR-Muni targets those communities that “care about agriculture from a planning perspective and have enough agricultural activity to care about.”

The program focuses on encouraging towns to create a Town Agricultural Commission to advise local boards and governing bodies on policies and decisions that may affect agriculture; adopting a local right-to-farm bylaw; promoting local agriculture through educational programs, farmers markets and community events; establishing funding sources to contribute to farmland protection projects; and incorporating farmland protection principles into the town plan and zoning ordinances.

Role of Land Trusts in Farm Preservation

Land trusts and other conservation organizations have played a critical role in shaping and implementing agricultural programs. Because of the significant threat to farming from development, some of these organizations have become very involved in efforts to encourage smart growth in towns.

The AFT, with a staff of two based in Northampton, has been at the forefront of these efforts. In partnership with the state and a diverse
group of nonprofit organizations, the AFT produced in “Growing Together” a strategic plan for integrating agriculture and growth management in the valley. The publication, which included 52 recommendations for action, is widely credited with raising awareness about the relationship between Smart Growth and agricultural preservation and spurring action by local towns. In addition to its policy research and recommendations, the AFT also has assisted several towns, such as Deerfield, and Hadley, in improving how they plan and regulate land use and sharing examples of “agriculture friendly” bylaws. Finally, it plays a useful advocacy role, urging towns to establish agricultural commissions in western counties that would serve as advocates for better zoning for farms and helping farmers buy inputs in bulk or to create cooperative value added operations.

Farmland preservation also remains a key priority for many regional and local western Massachusetts land trusts. The Berkshire Natural Resource Council (BNRC), Franklin Land Trust, Valley Land Fund, and Winding River Land Trust all see farm preservation as a key to preserving the rural character and environmental integrity in western Massachusetts.

Land trusts have also provided interim financing to farmers who cannot wait for state APR funding. With the new Commonwealth Capital filter applied to a good deal of the APR funds, land trusts are no longer assured public take-out and are unsure of how to proceed (see sidebar for an innovative financing solution developed by Trustees of the Reservations).

Some farms protected by land trusts participate in the region’s budding “locally grown” movement. Community Involved in Sustaining Agriculture (CISA), a national leader in efforts to market locally grown produce, is working with land trusts and landowners to market western Massachusetts products and influence consumer-buying habits. CISA has set a nationwide precedent for the marketing of local produce by instituting the use of “locally grown” signs in markets and providing advertising for local produce through hundreds of local paper ads, 62,000 direct mailings, 72 bus boards and advertisements on seven radio stations. Project Native is a fledgling effort that uses food as the central vehicle for helping people reconnect to nature. Their work is centered in Great Barrington, and is the retirement project of George Wislocki, the founder of BNRC.
Forestry

Forestry: An Overview of State and Regional Trends

Forests are the dominant land cover across the state of Massachusetts, comprising 3.1 million of Massachusetts’ 5.2 million acres. Within the four western counties of Massachusetts, forests cover over 80 percent of the land (see Figure 4.4-4.5, Pages 58-59). The majority of state lands are concentrated in the west with 70 percent of all state forestland (not including watershed lands) in the Berkshires alone. The majority of forestland is even-aged, having originated after agricultural abandonment in the late 1800’s though some stands have remained undisturbed from agricultural clearing, natural disasters or timber operations for more than 170 years.

Roughly three-quarters of Massachusetts’ forestland, or 2.4 million acres, is privately owned. These private lands contribute immense value to Massachusetts. Seventy-four percent of documented occurrences of rare species and natural communities have been on private land. These parcels also help to maintain the large, intact landscapes necessary for watershed protection and recreation.

The forest industry in Massachusetts generates between $845 million and $1.7 billion annually in revenues, if one includes paper and cardboard industries. In 2001 there were 40 sawmills in Massachusetts and 18 portable mills, mostly concentrated in the five western counties.

Given the economic contributions of private forestland, a major priority of multiple state agencies and nonprofit groups has been to create policies and incentives that encourage continuing private ownership and sustainable management of forestland.

Working Forestland in a Conservation Context

Working forestland plays many important roles in a conservation context. The sustainable extraction of timber provides a financial incentive to keep land forested. Supporting forestry infrastructure and services, including assistance with management plans, tax incentives, mills and local markets, is often considered, especially by economically constrained governments, a low-cost and efficient way to protect land from development.

Local forestry also links to global forest conservation. Many academic institutions within Massachusetts are currently asking: Where should our natural resources come from? While the wealthiest countries consume
the most goods, they are also often the ones most able to afford land conservation, leading to resource extraction in areas in the world with less regulation and sometimes more sensitive ecosystems.

Forest Retention: Direct Protection Tools

A working forest easement or conservation restriction (CR) assures permanent protection against development and can be purchased by a land trust, state, or federal entity. A CR allows the landowner to realize a portion of the value of their land while maintaining the timber rights. New England Forestry Foundation (NEFF) has played a significant role in promoting the use of the CRs for protecting working forest land. In 1999, Hull Forestlands LP negotiated an option to purchase 7,021 acres from the heirs of the Peck Lumber Company lands in the Westfield River basin in southwestern Massachusetts. Hull Forestlands couldn't afford the sale price of these lands with the development rights attached. The NEFF offered to buy a CR on 8,500 acres, assuring the permanent protection of these forestlands and helping to sustain the rural forest economy in more than 15 local towns.

Chapter 61, Massachusetts Current Use Forest Tax Law, can also play an important role in direct forestland protection. Chapter 61 both provides tax benefits to the landowner who maintains his/her land as forest and promises the town a right to first refusal when the land is going to be sold.

Forest Retention: Indirect Protection Tools

Even with the CRs and tax deductions from Chapter 61, timber values may not sustain a cash-strapped landowner. Landowners often realize the majority of the costs and the minority of the profits on their timber. Estimates show that the value a landowner gets for a log is one-fiftieth the value that a retail organization realizes. In order to achieve greater economic return, landowners need to sell finished products instead of raw logs. The South Deerfield-based Massachusetts Woodland Institute and Woodlands Cooperative, LLC have made great strides in delivering greater margins to landowners. The Massachusetts Woodland Cooperative is a simple idea with a great deal of power. Like any cooperative, the members realize the benefits of scale by working together. Members pay $250 a year to join the cooperative and for that fee get: 1) Forest Stewardship Council certification under the cooperative’s group certification system; 2) professional assistance in setting a harvest schedule; and 3) logging and milling services. The owners are paid going rates for their logs plus an additional 10 percent, and the cooperative mills the wood in its own mills and sells the wood as boards or as a finished product, such as flooring. The profits from the sales pay for the cooperative’s costs and remaining profits are returned to the landowners.
Working Forestland Protection Priorities

Large forested blocks that coincide with watersheds stand out as a protection priority. Because hundreds of thousands of acres drain into Massachusetts’ reservoirs, it is important to encourage private landowners, whether through tax incentives or management plan assistance, not to develop within watershed boundaries. Far from harming water quality, active proper management of watershed lands can often accelerate watershed management goals.

The BioMap and Living Waters core habitat lands serve as proxies for the most important acres for landowner assistance. The areas surrounding the state’s proposed 52,000 acres of reserve lands will also be important regions for working forestland protection (see Section 6 for more information on the state’s reserve system). Surrounding these reserves with sustainably managed forestland will help protect these reserves from human impacts.

State Landowner Assistance Programs

Efforts to support forestland owners in the active management of their lands are headed by the Massachusetts Bureau of Forestry, various land trusts and other innovative organizations.

The Bureau of Forestry runs a Forest Stewardship Program (FSP), that helps landowners identify their goals for their land and then pays for the cost of creating a management plan in exchange for a 10-year agreement, held by the state, where landowners agree to not develop the lands and implement the management plan.

While the FSP once received federal dollars for FSP participants to implement their management plans, all the federal support for this program was cut two years ago. Landowners are often left with detailed management plans but with no money or assistance for implementation. In response to this need, Bob W. O’Connor, the Director of Land and Forest Policy, has proposed a Forest Viability Program modeled after the successful Farm Viability Program. The program will be run by Berkshire-Pioneer Resources Conservation and Development group, a nonprofit in Amherst, and will trade a five-year covenant for access to environmental, economic and marketing consultants who will help the landowner complete a plan for production of specialty products, niche marketing, direct marketing, value-added initiatives, ecotourism and improved management practices. Qualifying landowners will receive implementation awards not to exceed $20,000 per plan, or $250 per acre. Implementation funds will require recording a 20-year no-development covenant. The original program that assisted with management plans was funded with $460,000 in the past two years; funding for the newly expanded program in 2006 fiscal year looks promising.

Also within the Bureau of Forestry is Service Forestry. This program oversees Chapter 61 rules, making sure that cutting plans are followed and adhere to environmental regulations. Service Forestry once also played an educational role, providing outreach, workshops and technical assistance as a way to avoid noncompliance issues. Recent budget constraints have resulted in elimination of educational outreach services and increased emphasis instead on Service Forestry’s role as a regulator.

With most of Massachusetts’ rare species found on privately owned lands, the state’s MassWildlife Landowner Incentive Program (LIP) is a critical component of wildlife protection in the Commonwealth. Administered by the Division of Fisheries and Wildlife and the Ecological Restoration Program, LIP provides matching funding for habitat creation, habitat restoration, invasive species eradication and wildlife monitoring. A significant component of the program also includes technical assistance by professional wildlife biologists that assist landowners in writing and implementing management plans.
Figure 4.1: Western Massachusetts Protected and Unprotected Agricultural Lands

Source: MassGIS Department
Figure 4.2: Protected and Unprotected Agricultural Lands

Source: MassGIS Department
Figure 4.3: Federal Farmland Priorities

Source: Massachusetts Natural Resource Conservation Service
Figure 4.4: Protected and Privately-Owned Forest Lands

Sources: MassGIS Department and The Trustees of the Reservation
Figure 4.5: Western Massachusetts Protected and Privately-Owned Forest Lands

Sources: MassGIS Department and The Trustees of Reservations