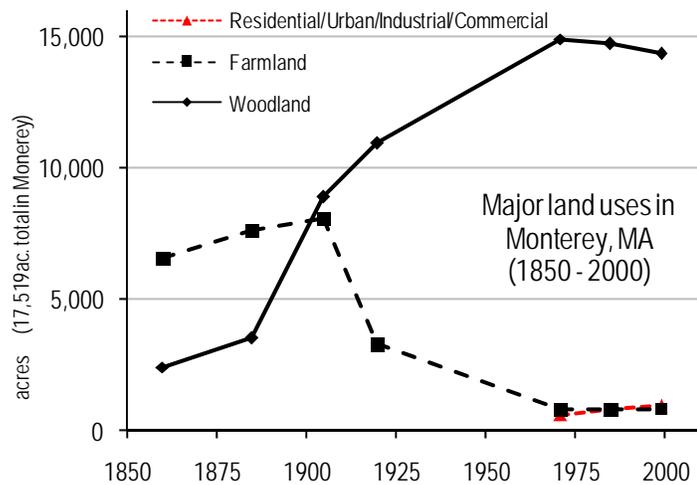


## WHY HARVEST TREES AT THE BIDWELL HOUSE MUSEUM?

Timber harvesting, and forest management in general, can be a controversial subject. Many people have argued that timber harvesting is unsightly and there is no reason to harvest timber in Massachusetts' special forests. However, *silviculture* – applied forest ecology – as applied in the realm of *forestry* – the art and science of managing forests for a sustainable flow of forest benefits – helps to ensure that forests and woodlots are able to meet the multiple demands that their owners, and society, place on them over time.



### *These forests are part of a working landscape*

Since the settlement of Monterey in the mid-1700s, people have worked the land to meet their needs. As the population increased, the pace of land clearing rapidly increased until the mid 1800s, when most of the land in Monterey was cleared for agriculture; six sawmills in town and many others nearby used the harvested trees. Since the late 1800s and early 1900s, as farms were abandoned, forests gradually reclaimed abandoned agricultural land, and by 2005 Monterey was 84% forested. At the Bidwell House, the forest is the only part of the original farm that is still in active agricultural use and contributing income. Forestry contributes significantly to the funds needed to sustain the museum.

### *Forest management in Massachusetts*

Massachusetts only harvests approximately 2% of the volume of wood it consumes. Timber harvesting in Massachusetts has been declining since the mid-1980s, as a result of many factors: increasing development and forest parcelization, a decline in blue-collar jobs in the forest industry, and changing attitudes about environmental awareness. Forest inventory data shows that Massachusetts harvests less than 0.5% of its total growing stock every year, and timber harvesting in Massachusetts only occurs on about 0.8% of its forest area annually. Reducing production of forest products here means increasing reliance on imports, from places that do not regulate timber harvesting as well. Massachusetts has some of the best and most stringent timber harvesting regulations in the country, and the world. From 1984-2003, there were 118 timber harvests on 3,597 acres in Monterey, harvesting approximately 9,400 thousand board feet and 4,300 cords of timber. In nominal non-inflation adjusted dollars, these harvests generated approximately \$1.3 million of revenue for landowners, \$1.0 million in logging wages, and \$379,000 in trucking wages. This activity helped to sustain a rural, sustainable, natural resource-based economy, rather than one based on land use change and development.

### *Forest management principles for the Bidwell House*

These forests which developed after agricultural clearing are relatively uniform in age and structure. One goal of forest management is to increase diversity, both in tree ages and species composition. This is similar to the way farmers avoid monocultures that are susceptible to disease. The science-based silviculture used on the Bidwell woodlands – developed by licensed foresters, approved by the board of directors, and carried out by licensed harvesters – creates patches of young forest, half to three acres in size.

- The Bidwell House has had an active forestry program since the mid-1990s.
- This helps maintain water quality by ensuring that rainfall and snowmelt have a healthy, actively growing forest to absorb nutrients and trap sediment before it reaches streams and water bodies.
- Patches of young, regenerating forest help to provide habitat for wildlife species dependent on brushy areas, some of which have been in decline in Massachusetts since open areas have decreased and forestland has increased over the past 100 years.
- Money is not the primary objective. In fact, good silviculture requires removing many trees that are of no value because they are diseased, or damaged by the recent ice storm in December '08, to allow seeds to germinate. Some trees with no timber value, however, are left for wildlife dens or perch sites.
- The timber harvest is part of a long-term plan, including special or sensitive areas consciously set aside from timber harvesting. The current harvest began in 2005 and is scheduled to conclude this winter. The next harvest might take place in 20-40 years.

### *What about the mess?*

There is no question that the wood left on the ground after the harvest is unsightly. However, the decomposing wood keeps nutrients on site, as opposed to chipping and removing them. Additionally, slash piles created near wetlands help create cool, moist places for salamanders and amphibians to seek shelter from midday heat; and brush in other areas prevent deer from eating young seedlings.

Data from Berlik et al. 2003; Foster & Motzkin 2009; Kittredge et al. 2009; de la Cr  taz et al. 2010; Miles 2010; VanDoren, 2010; and MassGIS.

# Seventy years of land use change and forest management in and around the Bidwell House

Monterey, MA

Prepared January, 2012

Property outlined with thick, black line

Images from USGS (1942, 1959, 1980); MassGIS (1997, 2001); and NRCS (2010)

Note especially the decline in fields and early successional habitat from 1942-1980; the 2-4 ac. clearcuts in the northeast corner of the property between 1997-2001; the selection harvests in the west and southern part of the tract between 2001-2010, and the increased development throughout.

