

2008

# MASSACHUSETTS CONSERVATION

## REVIEW

**CONSERVATION**  
**OUR PURPOSE. OUR PASSION.**

**CONSERVATION**  
**STORIES**

How NRCS Programs Are  
Helping People Help the Land

**OUR PARTNERS**

Working Together To  
Protect and Conserve  
Our Natural Resources

**OUR PEOPLE**

Meet NRCS  
Employees  
and Volunteers  
Dedicated to the  
the Land

**FACTS**  
**& FIGURES**

Learn About  
Massachusetts  
Agriculture  
and  
Conservation



United States Department of Agriculture  
Natural Resources Conservation Service

*Helping People Help the Land*

# CONSERVATION



## Our Purpose. Our Passion.

### Greetings:

The Natural Resources Conservation Service is proud to announce the launch of a new national public information campaign called "Conservation...Our Purpose. Our Passion." This edition of the Massachusetts Conservation Review, formerly known as the Conservation Update, introduces the campaign theme here in the Bay State.

The campaign is designed to tell the NRCS story through grassroots experiences of our customers and employees. It will remind NRCS partners, existing and potential customers and the public that being a part of our conservation alliance is more important now than it ever has been. In these pages, you'll read stories about Massachusetts customers, partners and employees along with information, facts and figures on NRCS programs and the Commonwealth's agriculture.

As new opportunities for Massachusetts farmers emerge, it's vital that we share success stories and observations of how those opportunities came about. A strong commitment to conservation is one reason why Massachusetts farms are remaining economically and environmentally viable. The stories we will tell in this campaign capture how their work and conservation goals are achieved through the support of the more than 60 Massachusetts NRCS employees who helped them protect soil, water, air, plants and animal habitats.

NRCS is honored to have the support and commitment of all our partners, particularly Massachusetts 14 conservation districts. As we anticipate a new Farm Bill and the changes it will bring, we are working to strengthen those partnerships. I encourage anyone who shares our purpose and passion for conservation to get involved in a local conservation district, resource conservation and development council, or become an Earth Team volunteer.

In the coming months you will see additional success stories and campaign materials. We hope that you will share these materials and pass on the message to your colleagues and conservation partners. "Conservation...Our Purpose. Our Passion." is built around grassroots conservation successes that benefit everyone. As we continue our strong partnership in reaching our common environmental and natural resource goals, we are confident that this campaign will only enhance our efforts.

*Christine S Clarke*

CHRISTINE S. CLARKE  
State Conservationist

The 2008 Massachusetts Conservation Review is a publication of the United States Department of Agriculture's Natural Resources Conservation Service in partnership with:

Massachusetts Association of Conservation Districts

State Commission for the Conservation of Soil, Water and Related Resources

**Editor:** Diane Baedeker Petit,  
Public Affairs Officer, NRCS  
Massachusetts

**Design and layout:** Catherine Ulitsky, Visual Information Specialist, NRCS Massachusetts

**Photography:** All photographs by Diane Baedeker Petit, except: PAGES 4-5: Dust bowl photo courtesy of NRCS.

PAGE 18: Photo of Liz McGuire by Kathryn Zichelle Sullivan.

PAGE 23: Photo of Smith College students from Ed Judice Photo.

Article about Morven Allen on page 10 written by Christine McGlone, Information and Arts Student Trainee.

Thank you to the customers, partners, employees and volunteers who were willing to share their conservation stories.

Published April, 2008  
Amherst, Massachusetts

# contents

- 
- 4 A Brief History of NRCS
- 5 The Massachusetts Conservation Partnership
- 6 NRCS Farm Bill Programs and Stories
- Mapleline Farm 6**  
Environmental Quality Incentives Program (EQIP)
  - Wampanoag Aquinnah Shellfish Hatchery 8**  
Environmental Quality Incentives Program (EQIP)
  - Maple Shade Farm 10**  
Environmental Quality Incentives Program (EQIP)
  - Eel River Headwaters Preserve 11**  
Wetlands Reserve Program (WRP)
  - Sholan Farms 12**  
Wildlife Habitat Incentives Program (WHIP)
  - Leczynski Farm 13**  
Farm and Ranchland Protection Program (FRPP)
  - Tweenbrook Farm 14**  
Conservation Security Program (CSP)
  - Wheel-View Farm 15**  
Grassland Reserve Program (GRP)
- 16 Resource Conservation and Development Program (RC&D)
- 18 Partnerships at Work
- 20 Soil Survey
- 21 NRCS Massachusetts Funding
- 22 Employee and Volunteer Vignettes
- 24 Facts & Figures
- 26 About Massachusetts
- 28 Contact Us

## A Story of Land and People

NRCS draws on a tradition of working with private landowners that is as relevant today as when it was a dream to Hugh Hammond Bennett in the late 1920s and early 1930s.

A career soil scientist in USDA, Bennett became convinced that soil erosion was a national menace and that its solution lay in tailoring conservation practices to fit the capability of the land and the desires of landowners.

With the nation struggling through the Great Depression, huge black dust storms blew out of the Midwest, eventually reaching the East Coast. The dust blocked out the sun and covered much of the countryside in between and was even seen by ships 200 miles at sea.

In 1933, the Soil Erosion Service, predecessor to the Soil Conservation Service and NRCS, began working with farmers in the Coon Creek watershed of southwestern Wisconsin to transform the square, eroding fields into what one sees today—a conservation showplace of contouring, stripcropping, terracing, and wise land use that benefits the soil, air, water, as well as the plant, animal, and human life of the whole watershed.

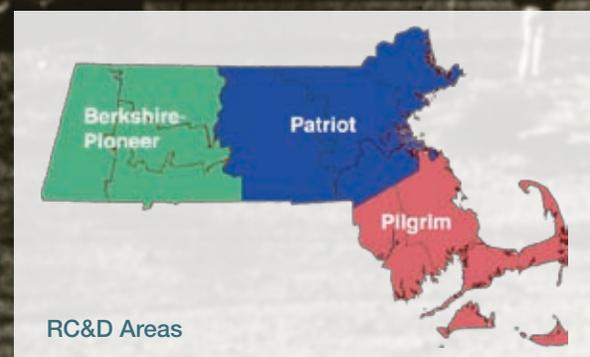
Simple solutions for all situations would be fruitless. The crops,

the land, and the climate were so diverse that specialists in agronomy, forestry, soil science, biology, engineering, and social sciences were needed to develop conservation methods. They worked with farmers to find solutions that benefited the land and fulfilled the landowners' aspirations.

Congress realized that only active support from landowners would guarantee the success of conservation on private land, yet many farmers distrusted the federal government. The idea of locally-led conservation districts was born and model legislation was drawn up, which was eventually adopted by all 50 states.

The carpeting of the land with soil conservation practices nationwide was hastened with the passage of the Soil Conservation Act in April of 1935. The first conservation district was founded in North Carolina on August 4, 1937. Locally elected citizens set priorities and plans for the district's work, thereby establishing a method for the Service to assist farmers.

Massachusetts passed its enabling legislation in 1945, establishing each conservation district as a subdivision of state government to carry out programs for the conservation and wise management of soil, water and related resources.



## The Massachusetts Conservation Partnership

State environmental agencies, local conservation districts and RC&D councils work hand-in-hand with the USDA Natural Resources Conservation Service, creating a strong Conservation Partnership for all of Massachusetts.

### USDA Natural Resources Conservation Service

The USDA Natural Resources Conservation Service (NRCS) is the federal agency that shows farmers and other landowners how to improve and protect their natural resources through simple conservation practices and federal conservation programs that can improve water quality and maintain healthy and productive lands. Americans have been consulting NRCS for decades; seeking expert advice on issues like erosion, water quality and soil productivity. NRCS is not a regulatory agency. Rather, landowners and NRCS specialists work together on a voluntary basis to develop a conservation plan that leads to wise stewardship. NRCS provides assistance directly to citizens and communities who request it. The agency's conservation specialists—biologists, planners, engineers, soil scientists, technicians and geologists—are experts in addressing natural resource concerns.

### Conservation Districts

A conservation district is a subdivision of state government, established under state law to carry out programs for the conservation and wise management of soil, water and related resources. There are 14 conservation districts in Massachusetts. Each district is governed by a board of supervisors – locally elected citizens who volunteer their time and leadership to the conservation effort. Conservation district supervisors work directly with NRCS to deliver technical assistance to the people of Massachusetts. Each conservation district is a voice for the community, providing leadership on conservation issues and establishing priorities for conservation activities and programs. The Bay State's conservation districts collaborate as a statewide organization through the Massachusetts Association of Conservation Districts (MACD).

### The State Commission for Conservation of Soil, Water & Related Resources

As part of the Commonwealth's Executive Office of Environmental Affairs, the State Commission for Conservation of Soil, Water & Related Resources serves as a resource for local conservation districts. Through state environmental agencies including the departments of Conservation and Recreation, Agricultural Resources, Fish & Game and Environmental Protection, conservation districts have access to state resources for delivery at the local level. The State Commission also provides the mechanisms for regional projects such as the Massachusetts Envirothon, a highly successful environmental education program for high school students. Working closely with NRCS, the State Commission provides excellent opportunities to coordinate and focus state and federal programs for conservation work in Massachusetts.

### Resource Conservation & Development Councils

The RC&D program, administered by NRCS, was created in 1962 and is based on the assumption that local citizens -- RC&D Councils -- with help provided through NRCS, can develop and carry out an action-oriented plan for the economic, social and environmental enrichment of their communities. The purpose of the RC&D program is to promote conservation, development and use of natural resources, to improve economic activity and to enhance the environment and standard of living in communities. The program's aim is to provide a system for rural development, encourage the wise use of natural resources, and improve the quality of life.

# MAPLELINE FARM

## Environmental Quality Incentives Program (EQIP)

### Finding a Niche: Direct marketing and land stewardship keep Mapleline Farm viable

“When you direct market your product, you want people to feel that it’s a clean wholesome product coming from a clean wholesome environment,” says John Kokoski when explaining how the assistance he’s received from the USDA Natural Resources Conservation Service (NRCS) has helped him keep his Hadley, Massachusetts, dairy farm sustainable.

“We try to project a favorable image to our neighbors and the general public. NRCS’s help with nutrient management was kind of a helping hand in managing our farm,” says Kokoski, who sells his milk directly to consumers through a farm store and old-fashioned home delivery, as well as through wholesale accounts with local retailers.

Mapleline Farm has been operated by five generations of the Kokoski family for more than a century. John Kokoski’s great grandfather Stanley bought the farm in 1904 and throughout the generations, the farm has produced vegetables, onions, tobacco and milk.

Mapleline Farm is still a family farm. John’s son and daughters are involved in the operation, and John’s wife Elaine takes care of the retail store and bookkeeping.

Through direct marketing, the 110 acre farm has weathered rising energy and feed costs combined with low milk prices and immense development pressure. Milk from their 100 Jersey cows is processed and bottled in glass bottles on the farm.

“We’re just trying to find our niche and be able to use direct marketing to enhance the milk price that we get and keep our farm viable,” says Kokoski.

In fact, expansion of his direct marketing operation first led Kokoski to contact NRCS for help.

“When we wanted to put our milk

processing plant at our farm, there was a problem because being as rural as we are, we don’t have city sewers here,” says Kokoski, explaining that the processing plant generates a lot of waste water – known as gray water – and they weren’t able to build a water treatment facility large enough to handle it.

“NRCS came to our rescue and told us we could incorporate waste water from the plant into our manure slurry. They helped us with both our pump reception pits and slurry storage and helped us manage both our manure and the waste water from our processing plant,” explains Kokoski.

“Until we started that project I hadn’t had a lot of dealings with NRCS. They came out and were more than willing to offer help,” says Kokoski. “They did a lot of the surveying and engineering work. I was amazed at the services that they were able to render, which I thought were above and beyond what’s expected from a government agency. People were very accommodating, very knowledgeable and I was truly satisfied.”

Dwane Coffey, District Conservationist overseeing the NRCS Hadley field office, explains why Kokoski shines as one of Massachusetts best conservationists: “Our office has numerous good clients. Some are good cooperators with conservation districts, some have a great rapport with NRCS, some are real stewards of their natural resources and others are community leaders. John Kokoski embodies all of those qualities.”

Soil Conservationist Gene Kosinski worked with Kokoski on designing an innovative waste storage project, installed with financial assistance through the Environmental Quality Incentives Program (EQIP). The centerpiece of the project is a SlurryStore tank to store the collected manure, milkhouse wastewater and milk processing wastewater.

Natural Resource Specialist Vince Snyder worked with Kokoski to develop a Comprehensive Nutrient Management Plan (CNMP), a progressive planning tool, on 85 acres. The Kokoski CNMP, one of the first to be signed and implemented in Massachusetts, provided Kokoski with nutrient management recommendations for applying manure and wastewater to meet the nutrient requirements of his crop fields.

“We try to do a good job managing nutrients from the slurry and cultivate in nutrients to make a good soil base for our crops,” says Kokoski. “We have to be very careful that we don’t over-spread our manure because a lot of the brooks and drainage ditches that run through our farm and our neighbors’ farms eventually make it into the waterways.”

Mapleline Farm sits in the middle of a bedroom community for the five colleges that are within a 15 mile radius of the farm. Kokoski sees that as an advantage in direct marketing, adding that most of his products are shipped within that 15 mile radius.

Hadley is a growing residential community with a strong agricultural base. This scenic community is bordered on the west by the Connecticut River and on the south by the Mount Holyoke Range. Concerns facing a small dairy farm here are much the same as across Massachusetts: development pressure is strong, issues with residential neighbors are common and operating costs are high. On the other hand, with a strong customer base close at hand, direct marketing is a viable and profitable option for many small farms in the area.

“We have some of the best land in the state because we’re so close to the Connecticut River,” says Kokoski. “Probably by most standards, people would think it’s too good for a dairy but we grow some fantastic crops in terms of corn, alfalfa and grass to feed our cows. The soils here have

Jersey cows on Mapleline Farm





John Kokoski, owner of Mapleline Farm

no stones; it's a very rich loam base, very easily tilled. It's nice for marketing, mowing and milking cows."

Mapleline Farm regularly hosts open houses for the public and events for farmers. "When we asked NRCS to participate, they not only set up an informational booth, but also Gene [Kosinski] pitched right in and gave a walking tour and explanation of what NRCS has done on our farm, which was very helpful," says Kokoski. "I think it helped to have somebody with his qualifications and expertise and experience to explain to the public just what NRCS does for the agricultural community."

"A lot of people around here are very interested in what happens to the environment," says Kokoski. "We use glass bottles in marketing our milk because by using the returnable bottles, it shows our customers that we are helping to preserve the environment."

Kokoski is taking a manageable and sustainable approach to planning the future of Mapleline Farm. "Our goal is not to continue to get bigger and bigger but to achieve a reasonable goal and improve on efficiencies in our cattle quality and our management practices."

"We just put up a new free stall and milking parlor with capacity for 100 milk cows. With the land base that we have and the labor resources, about 100 milking cows and another 100 dry cows, heifers and calves is about where we want to be and we think we can do a good job at that."

Kokoski foresees a need for future assistance from NRCS as his farm needs change and environmental consciousness grows.

"In this global environment where everyone is concerned with water conservation and water purity, I think everybody is somewhat conscious of what we're doing to the environment. I think everybody should have a passion for maintaining the environment for the future." 💧



## Environmental Quality Incentives Program (EQIP)

EQIP is NRCS's flagship program. Through EQIP, farmers may receive financial and technical help with structural and management conservation practices on agricultural land. Projects mostly focus on water quality protection and water use savings.

EQIP offers contracts with a minimum term that ends one year after the implementation of the last scheduled practice and a maximum term of 10 years. EQIP activities are carried out according to a plan developed in conjunction with the producer that identifies the appropriate conservation practice or practices to address the resource concerns. The practices are subject to NRCS technical standards adapted for local conditions.

Massachusetts NRCS staff rank and approve applications in a statewide process, developed in conjunction with national guidance and priorities identified by the State Technical Committee and local work groups.

## Environmental Quality Incentives Program (EQIP)

### Preserving an ancestral resource: Wampanoag Tribe conservation practices protect Menemsha Pond

“Menemsha Pond has fed our ancestors for thousands of years. It’s very important to the Wampanoag people,” says David Vanderhoop, Manager of the Wampanoag Aquinnah Shellfish Hatchery and a member of the Wampanoag Tribe of Gay Head (Aquinnah), on the island of Martha’s Vineyard, Massachusetts. The tribe’s aquaculture operation produces oysters in Menemsha Pond and markets them as “Tomahawk Oysters” to local stores and restaurants.

“We’ve harvested from the pond since time immemorial. Every single Wampanoag’s ancestors have eaten from this pond. I believe it’s a very, very important resource to keep healthy. That’s why I’m so passionate in trying to make sure this project is a success.”

Vanderhoop is speaking about the tribe’s participation in a pilot project with the USDA Natural Resources Conservation Service (NRCS) to develop best management practices (BMPs) for shellfish aquaculture. Growers on Martha’s Vineyard and the Cape Cod mainland were eligible for technical and financial assistance to implement the practices through the Environmental Quality Incentives Program (EQIP), a first-in-the-nation application of this federal farm conservation program.

Shellfish aquaculture best management practices protect water quality by controlling oil and gasoline emissions from outboard motors, endangered species through gear management, and shellfish health through buffers, record keeping and monitoring.

The Wampanoag Tribe has run the shellfish hatchery since 1999, when David’s brother Matthew Vanderhoop started the project. The tribe had run a pilot aquaculture project in the 1970s, successfully growing scallops until funding ran out and the project ended.



David Vanderhoop, manager of the Wampanoag Aquinnah Shellfish Hatchery

“We decided that we would put this hatchery up for not only the economic viability of growing oysters, but also to help the pond stay healthy. With all the native shellfish in the pond – the hard shell clam, the quahog, the scallop, the soft shell clam and oysters – it’s an important natural resource not only for the tribal people but also the non-tribal people in the town,” says Vanderhoop.

Vanderhoop explains that over-fishing and pollution have contributed to decline of shellfish populations in many places on the East Coast. “With this project, and with the help of all the different grants that we’ve gotten, we’ve been able to help maintain the shellfish population in the pond,” says Vanderhoop.

Although the aquaculture operation has had environmental benefits for the pond, there has been some impact, as well. The tribe has been proactive about reducing its impact.

“We grow on top of the water simply because that system is a lot less maintenance. With our system, the oysters are in mesh bags that float on the surface. To clean the bags, all we do is flip the bag over once every two to three weeks. The sun bakes off the algae that grow on the

bags. It’s a lot less maintenance than a deep water system,” explains Vanderhoop.

The bags are kept afloat with Styrofoam tubes, called noodles, similar to the colorful ones that kids float on in a swimming pool. Because of the wave action in Menemsha Pond, which opens onto Vineyard Sound, the tubes get chipped and the chips wash ashore and accumulate in the eel grass.

“The last couple of years, we had a beach clean up in the spring and summer. We walk the beaches and gather the eel grass. We take it upon ourselves to go in there and clean it up,” says Vanderhoop. “Any bags that get loose or noodles that come off, we take it seriously. If it comes from us, we clean it up. Even if it doesn’t come from us, we clean up the trash and keep the environment clean.”

“In 2005, our director at the time, Rob Garrison, put his feelers out and asked different agencies if they could be of assistance to us,” remembers Vanderhoop. “He contacted NRCS and was able to secure some funding for specific parts of the project, mainly making sure that the shoreline stayed as pristine as before we started. The help that we got from the NRCS was just what we needed at the time.”



Shellfish bags in Menemsha Pond



Gay Head, Martha's Vineyard

"I feel really thankful that the NRCS was able to help us in that way," says Vanderhoop, adding that NRCS assistance not only helped them with their environmental concerns but also with their relationship with the town. "I think it's had a positive effect on what this project has to offer the tribal members and non-members."

"The Wampanoag Tribe was the first aquaculture operation to sign onto the fledgling EQIP shellfish program," says NRCS District Conservationist Donald Liptack, who oversees the agency's Barnstable field office. "They also provided valuable input for the development of the best management practices."

Liptack adds the Massachusetts Aquaculture Association and the Southeastern Massachusetts Aquaculture Center were also involved in development of the BMPs and outreach efforts.

The operation's BMPs have included replacing the foam noodles with hard plastic noodles that won't chip. "That has been a heavy expense in terms of time and money but we've shifted that way because it's better for the environment," says

Vanderhoop. "We had as many as 12,500 bags out there at once and we've had to change the noodles on each one of those bags because they had a small impact on the environment."

Vanderhoop explains their oyster aquaculture process:

"We spawn them here in the lab, they live here for six to eight months, then we put them out in the field in Menemsha Pond. From the hatchery they are moved into an upweller system, which is a system where the water is funneled through bins with screens that the oysters are sitting on. The water goes in one end, goes through the oysters and out the other end. They remain there for another three to four months.

"From the upweller they're moved to a shallow grow-out site. It takes two and a half to three and a half years for an oyster to reach maturity or marketable size, which is over three inches. The bags are different size mesh and are floated on top of the water. A lot of oyster growers put their oysters in cages which go on the bottom. We are one of the few that grow ours on top of the water.

"I believe that with this operation has actually enhanced the health of the pond. We maintain between two million and three and a half million oysters in the pond. These, along with other shellfish, are filter feeders and they do filter out much of the nitrites and nitrates, whether they come from the natural influx or man-made influx. So, I think it's impacted the health of the pond in a good way," says Vanderhoop.

Vanderhoop points out another environmental consideration: Herring Creek, which flows into Menemsha Pond, is a natural anadromous fish run for alewives and herring come from the salt water through the Herring Creek and into the brackish water of nearby Squibnocket Pond.

"With this project and the help of the NRCS, we've been able to control a lot of the waste management and the environmental impact that we could have had on the area," says Vanderhoop. "We'll continue to maintain the area as pristine as possible, as it was when my ancestors were here. We are conservation minded and we're here for the good of the town. It's important today but it's also important to my children and my people." 🌿

## EQIP Massachusetts

Fiscal Year	Contracts	Acres	Amount*
2003	140	8,728	\$2,361,221
2004	156	12,058	\$4,470,990
2005	157	6,540	\$3,686,200
2006	111	7,513	\$3,814,987
2007	107	4,194	\$3,687,233
2008	203	9,494	\$5,421,603
<b>TOTAL</b>	<b>874</b>	<b>48,527</b>	<b>\$23,442,234</b>

\*Amount paid to landowners



# MAPLE SHADE FARM

## Environmental Quality Incentives Program (EQIP)



Morven Allen, owner of Maple Shade Farm



Maple Shade Farm's manure storage facility

### **Incredibly fortunate: Organic dairy farm gets help dealing with the everyday challenges of farming**

Morven Allen has had a purpose for as long as he can remember. "Ever since I was a little boy growing up on a farm, that's all I have ever wanted to do," says the Berkshire County dairy farmer. "I look forward to getting up every morning at four o'clock and I feel incredibly fortunate to be doing what I am doing."

Having grown up on an organic dairy farm in England, Allen has been deeply passionate about his farming, his animals, and the environment for all his life.

Allen began his farming career in Massachusetts 20 years ago on a very small scale. "I started with two cows and two calves, with the goal to not get into too much debt and build up slowly," says Allen who today is a certified organic farmer with a herd of more than 250 cows and 155 acres of his own land.

Organic farming has always been Allen's preferred method. "It just fits the way I like to do things: lower input, lower output, less machinery," says Allen, whose milk is bottled by an organic milk processor and sold to the northeast market.

Assistance that Allen received from the USDA Natural Resources Conservation Service (NRCS) over the past 15 years has helped him meet some of his biggest challenges on his Maple Shade Farm.

"With the rotational grazing, transitioning to organic, installing the concrete feeding pad for the cows, diverting the water from the roof and addressing the many runoff issues. We also did a lot of work on the buildings, while still dealing with the everyday challenges of farming," explains Allen.

When Allen first started, rotational grazing was a fairly new concept, but NRCS was there to help. Through the Environmental Quality Incentives Program (EQIP), Allen received technical and financial assistance for the entire system, including fencing, watering and paddock layout.

"One of the things I like about rotational grazing is that it's very environmentally friendly. You're not burning fossil fuels; it's the cows doing the work."

A manure storage facility, incorporating milk house wastewater, and the nutrient management plan were implemented on Maple Shade Farm last year. This has allowed him to store the manure, and use it as a valuable nutrient resource on his fields when the crops really need it. "Being organic, the manure is my livelihood," says Allen.

Allen's new project for 2008 is improving walkways for the cows to get to the paddocks and cross a stream on the south

end of the farm. "The cows are going through the stream. The footing is poor, especially in the spring when the snow melts, and I know it's not environmentally-friendly."

Keeping the cows out of the stream helps protect water quality by limiting soil erosion and preventing sediment and animal waste from entering the water.

Allen is impressed with the support he's received from district conservationist Kate Parsons, as well as soil conservation technician Ed Drake and engineering technician Paul Benjamin. "They have gone out of their way to inform me of what is available, steer me through the projects, and help with deadlines," says Allen.

Kate Parsons explains how Allen's enthusiasm for the projects makes him a great farmer to do work with. "It has been a joy to work with Morven over the last three years. He's eager to do new projects and always thinking of ways he can improve his operation, both in terms of the bottom line and the environment," says Parsons.

Allen's passion for conservation plays a big role in his everyday life. The projects he's implemented with NRCS assistance have not only helped him manage his land now, but also conserve it for his son's future.

"I am very fortunate I have a ten year old son who is with me most days on the farm. My goal is to leave him something that's better than when I took it on," says Allen.



## A River Flows Through It

Celebrating the protection of Plymouth cranberry land and restoration of the Eel River

Some 95 acres of cranberry land in Plymouth, Massachusetts will remain as open space thanks to the USDA Natural Resources Conservation Service (NRCS) and a partnership of landowners, local and federal agencies and non-profit organizations. NRCS contributed more than \$300,000 toward conservation easements, construction for the restoration of the stream and surrounding wetlands, and other associated costs through the Wetlands Reserve Program (WRP).

Partners included two landowners, the Town of Plymouth, The Nature Conservancy, The Wildlands Trust of Southeastern Massachusetts, the Cape Cod Cranberry Growers Association, the Hornblower Foundation, the Sheehan Family Foundation and local residents.

The project ensures the permanent protection of the source waters of the Eel River, and will help restore populations of brook trout in the future. The property is contiguous to other town conservation land, which will help maintain a healthy, functioning landscape.

“This project shows the real power and creativity that partnerships can bring to conservation,” said Mark Primack, Executive Director of the Wildlands Trust. “We had a landowner willing to be innovative, two organizations working together, and strong municipal and federal partners.”

After NRCS purchased WRP easements on former commercial cranberry bogs owned by the Phoenix Cranberry Corporation and cranberry grower Ashley Holmes, Plymouth’s Community Preservation Committee purchased the bogs and surrounding uplands. The area, now called the Eel River Headwaters Preserve, is open to the public with a new trailhead parking area that provides public access to the preserve.

The Eel River Headwaters Preserve will be part of the northern link in the “Wishbone” trail system, two swaths of green space starting at Miles Standish State Forest

resembling a wishbone. The southern arm will lead from the state forest to Ellenville Harbor; the northern arm will lead from the forest to downtown Plymouth and Plymouth Harbor.

“Protection of this property preserves more than brook trout habitat and community character,” said Wayne Klockner, Massachusetts State Director for The Nature Conservancy. “Keeping natural areas intact will also help Plymouth’s drinking water stay clean and in good supply.”

A conservation restriction on the upland portions of the property will be held by The Wildlands Trust, with the NRCS holding a WRP easement on the bogs and streamside areas.

Conservation restrictions permanently protect a property’s natural assets by limiting certain uses, such as the right to subdivide or develop, and the WRP easement forever preserves all wetland areas on the land from alteration or disturbance.

Through WRP, NRCS also provides technical and financial support to help landowners with their restoration efforts. To be eligible for WRP, land must be restorable, suitable for wildlife benefits, and must have had an agricultural history.

“I’m very pleased to see this project come to fruition. With the help of the CCCGA, we were able to use a national farm program to protect and restore this important resource,” said Cecil B. Currin, former NRCS State Conservationist.

“We’re pleased that our Plymouth property will be protected in perpetuity,” said Jane Wadsworth, who’s father Ed Bartholomew owns Phoenix Cranberry Company. “By selling this low producing bog we will be able to enhance our other cranberry farms in Carver and Wareham. We plan to continue our family heritage of being environmentally sound cranberry growers.”



## Wetlands Reserve Program (WRP)

WRP offers an opportunity for landowners to voluntarily protect, restore and enhance wetlands on their property. NRCS provides technical and financial support to help landowners with their restoration efforts. To be eligible for WRP, land must be restorable; suitable for wildlife benefits; and must have had an agricultural history.

WRP offers three options to landowners to protect, restore and enhance wetland and associated uplands: permanent easements, 30-year easements or 10-year restoration cost share agreements. Applications are ranked and funded periodically throughout the year.

# SHOLAN FARMS

## Wildlife Habitat Incentives Program (WHIP)

### Wildlife Habitat Incentives Program (WHIP)

WHIP provides technical and financial assistance to landowners who want to improve fish and wildlife habitat or restore natural ecosystems on their land.

NRCS will pay a portion of the cost of establishing and maintaining conservation practices that are necessary for enhancing/improving wildlife habitat and restoring natural ecosystems.

Agreements are from 5 to 10 years in duration.

Members of the Friends of Sholan Farms joined federal, state and local officials in June 2007 to cut a “ribbon” of invasive plants, kicking-off a long-term federally-funded project to restore habitat for grassland nesting and migratory birds on Sholan Farms in Leominster.

The USDA Natural Resources Conservation Service (NRCS) is providing some \$65,000 in cost-share assistance through the agency’s Wildlife Habitat Incentives Program (WHIP) to clear invasive oriental bittersweet, multiflora rose



### Wildlife habitat restoration project launched at Sholan Farms

(L - R) Christine Clarke, NRCS State Conservationist; Michael Whited, NRCS Soil Conservationist; Mayor Dean Mazzearella; Neal Wynne, project manager; Joann DiNardo, President of Sholan Farms

and honeysuckle on 40 acres adjacent to the orchard. NRCS will also provide technical assistance.

Sholan Farms is owned by the City of Leominster and operated by the Friends of Sholan Farms, a community supported, non-profit organization. The Friends of Sholan Farms will provide volunteer labor for the project, which will begin this summer and will be on-going for the next decade.

“Mechanical clearing of invasive plants and diseased apple trees will start this year,” said NRCS Soil Conservationist, Michael Whited of the agency’s Worcester County office in Holden. “Next year there will be follow-up mowing, seeding and soil improvements for grass and wildflowers.”

As early as the end of 2008, however, the land will be restored to a natural meadow habitat, according to Whited. Maintenance mowing will be done each year through 2015.

“NRCS is pleased to partner with the Friends of Sholan Farms and the City of Leominster to restore this important habitat

and protect a natural resource that’s part of the heritage of the birthplace of ‘Johnny Appleseed’,” said Christine Clarke, Massachusetts State Conservationist for NRCS during the speaking program.

“This project is one great example of the \$1.1 million in WHIP projects that will be implemented cooperatively with state and local partners across Massachusetts this year,” said Clarke.

“The WHIP funding is a perfect fit with the Friends of Sholan Farms’ long term goal of reclaiming this portion of the orchard. We would not have been able to realize this dream without the help of NRCS,” said Steven Smith, Friends of Sholan Farms vice-president.

“Sholan Farms is a precious resource to the City of Leominster that we must protect and preserve,” said Leominster Mayor Dean Mazzearella. “This Wildlife Habitat Incentives Program assistance will enhance the natural beauty and ecology of this treasured orchard and surrounding farmland. Programs such as this are vital to the longevity of Sholan Farms, which dates back to the year 1642.”

### WHIP Massachusetts

\*Amount paid to landowners

Fiscal Year	Contracts	Acres	Amount*
2004	41	2,021	\$654,323
2005	48	1,110	\$1,122,706
2006	51	1,745	\$1,181,490
2007	46	1,465	\$1,158,124
2008	17	433	\$616,745
<b>Total</b>	<b>203</b>	<b>6,774</b>	<b>\$4,773,389</b>



(L - R) David Dumaesq, Samantha Dumaesq, Gene Leczynski, Wanda Bozek, Ed Leczynski

## A Farm Forever:

Federal and state programs help protect land and a legacy

Thirty acres of Dracut land farmed by the Leczynski family for over 87 years will remain in agriculture forever thanks to the federal Farm and Ranch Lands Protection Program (FRPP), the state Agricultural Preservation Restriction (APR) program, and the Town of Dracut Community Preservation Committee.

In September 2006, Wanda Leczynski Bozek led a dedication ceremony on behalf of the Leczynski family, who had sold the land to farmer David Dumaesq and the development rights to the Commonwealth of Massachusetts.

"This land has been farmed by our family for several generations," said Wanda Leczynski Bozek. "After much discussion, we all agreed that the best legacy we could leave to our family and to Dracut would be to preserve it as farmland. Our work with David, and the state, federal and town governments have helped us keep the land in agriculture."

The USDA Natural Resources Conservation Service (NRCS), which administers FRPP, has partnered with the Massachusetts Department of Agricultural Resources for more than a decade in an innovative land preservation partnership that leverages state and local funds with federal funds. The partnership starts, however, with the landowners who are

willing to place restrictions on their agricultural land in order to protect it for future generations.

"This project is an example of how public dollars, together with the unselfish values of a family, the Leczynski and Bozek families have made it possible for a competent young farmer, Dave Dumaesq, to grow fresh, local and safe food for Dracut families," said Warren Shaw, former First Selectman and advisor to Dracut's Community Preservation Committee.

"This was a signature project for the Town because it represents a public/private cooperative partnership that furthers one of the principal goals of the Town's planning efforts, namely the preservation of open space and our agricultural heritage for future generations to enjoy," said Dennis E. Piendak, Town Manager.

Jan and Jadwiga Leczynski acquired the property in 1919 as a mix of farm and woodland. In the early years, the Leczynskis operated a commercial dairy with 40 cows and their calves. The dairy business was phased out in the late 1950's and the farm has since been used to grow hay for commercial purposes. It had remained in the Leczynski family until its sale to Dracut farmer, David Dumaesq, subject to an agricultural preservation restriction that assures it will remain a farm forever.

"I'm very happy with this public/private cooperative effort," said James Carr, Vice chairman of CPC. "In the long run, the Town of Dracut will benefit immensely."

"I grew up working on farms in Dracut. After I returned to Dracut after working in the Peace Corps, I worked to build a farm business that includes farms and farmstands in two towns as well as farmers' markets in eight cities," said Dumaesq. "This, my first land purchase,

## Farm and Ranchland Protection Program (FRPP)

FRPP provides funds to purchase the development rights to farmland, preserving productive farmland for agricultural use.

NRCS partners with the Massachusetts Department of Agricultural Resources and other groups to leverage state and local funds for agricultural restrictions.

confirms that I'm in farming for life. The new Dumaesq Farm will provide space to grow crops such as blueberries, apples, pears, and peaches and will certainly be there for the future."

Since the inception of the APR program in 1977, the state has permanently protected 60,000 acres on some 680 farm properties with \$168 million in APR funding.

From the beginning of FRPP, first authorized in the 1996 Farm Bill, NRCS has awarded nearly \$20 million in federal funds to purchase easements on more than 5,000 acres of farmland in Massachusetts. ♦

FRPP Massachusetts		*Amount paid to landowners		
Fiscal Year	Farms	Acres	Amount*	
2003	11	696	\$2,873,900	
2004	22	1,549	\$4,605,875	
2005	15	989	\$4,276,614	
2006	12	818	\$3,670,202	
2007	16	1,000	\$3,878,889	
<b>Total</b>	<b>76</b>	<b>5,052</b>	<b>\$19,305,480</b>	

# TWEENBROOK FARM

## Conservation Security Program (CSP)

### Conservation Security Program (CSP)

CSP is a voluntary stewardship program that provides financial and technical assistance to promote the conservation and improvement of soil, water, air, energy, plant and animal life, and other conservation purposes on Tribal and private working lands. Working lands include cropland, grassland, prairie land, improved pasture, and range land, as well as forested land that is an incidental part of an agriculture operation.

CSP recognizes the efforts of farmers who have been practicing conservation and taking care of the land for some time. By meeting specific eligibility criteria, farmers may apply for payments on productive land. Payments increase with the amount of conservation work that has been done.



George Noble, owner of Tweenbrook Farm

### For Berkshire County farmer, clean water is key to conservation stewardship

Standing behind George Noble's farmhouse, looking over his corn field to the rolling Berkshire hills beyond, you'd never guess that Tweenbrook Farm is within the city limits of Pittsfield, Massachusetts. But despite its city zip code, the farm is nestled on 110 acres between the Housatonic River on the west, Sykes Brook on the south and Sackett Brook on the north.

Tweenbrook Farm's location along with Noble's record of good conservation practices made the farm eligible for the federal Conservation Security Program (CSP). Administered by the USDA Natural Resources Conservation Service (NRCS), Noble was one of the first Massachusetts farmers selected for this landmark program.

The Housatonic/Farmington watershed was one of 202 watersheds across the country, and one of two in Massachusetts, selected for CSP in 2005.

Historically a dairy farm milking 75-100 head of Holsteins and Jerseys, Tweenbrook Farm now produces sweet corn, butternut squash, and hay.

Noble sells the sweet corn at the farmstand,

the squash he sells both retail and wholesale. Local horse farms buy 25,000 bales of hay each year from Tweenbrook Farm.

Noble owns some 110 acres but farms about 300 through leased and rented land. His own land is protected through a state agricultural preservation restriction and borders a state wildlife area.

"The biggest natural resource concern that we have is clean water and keeping rivers and streams from being polluted," said Noble. "It's very important to keep the water supply clean and eliminate runoff."

To that end, Noble practices strip cropping and minimum tillage. He also has worked with NRCS to develop a conservation plan that includes crop rotation, cover cropping for the winter and integrated pest management.

"Anything we can do to conserve natural resources, we've tried to do here at the farm," said Noble. "I think water quality is the wave of the future. It's something that the whole world is going to have to look at," he said. ♡

Kate Parsons, NRCS District Conservationist and George Noble



## WHEEL-VIEW FARM Grassland Reserve Program (GRP)

### Just hanging out, eating grass:

#### Wheel-View Farm capitalizes on grass-fed beef and land stewardship



John and Carolyn Wheeler, owners of Wheel-View Farm in Shelburne, Massachusetts, are riding the grass-fed beef wave and the keys to their success are strong consumer demand and good land stewardship.

“The farm operation has really grown the past couple of years, faster than we expected it to because of the demand for local grass-fed beef,” says John, sitting with Carolyn before a scenic backdrop of the rolling hills of Franklin County stretching toward the Vermont border.

“People want to know where their food comes from and that the animals have a happy healthy life. They have a great life here, just hanging out and eating grass,” adds Carolyn. “All they eat is the grass in the pasture and the hay that we bale for them...and alfalfa cubes as treats so we can catch them when we want them.”

The Wheelers started raising three Highland cows in spring of 2002 and as soon as they had any beef ready, people wanted it. So, they bought more cows, the cows had calves and today the operation is up to 108 animals. But that’s not where the Wheelers story begins. John and Carolyn have been farming Wheel-View farm for nearly thirty years. They bought the original dairy farm from Carolyn’s parents in 1979 and continued the dairy operation for a while. The farm had been in Carolyn’s family since 1896.

“What really got us started was talking with another farmer. I think by hearing from someone who had actually done it got us motivated to look into it ourselves,” recalls Carolyn about how they found out about the Grassland Reserve Program (GRP) and other assistance available through the USDA Natural Resources Conservation Service (NRCS).

The Wheelers worked with Rita Thibodeau, NRCS District Conservationist to develop a conservation plan for their farm. “We really enjoy working with Rita,” says Carolyn. “She knows what she’s doing. She can remember all these plants that we can’t remember.”

“It’s a pleasure working with John and Carolyn Wheeler,” says Thibodeau. “They’re enthusiastic and passionate about agriculture. They’re willing to try new ideas to make their operation more efficient and effective. They’re a great example of a successful farm family.”

“We got a grant to clear a lot of the pastures. [A contractor] came with his Brontosaurus machine and it could just grind up the junipers and scrubby pines. It’s now coming back to grass and provides a lot more area for the cows to graze,” says Carolyn.

“We own about 250 acres and we’ve put it a lot of it into pasture,” explains John. “We also got money to help with fencing so we could divide up our large permanent pastures into smaller pastures that we could rotate.”

Carolyn points out that fencing also helps to keep the cows out of the pond and streams, protecting water quality. “The Shelburne Falls water supply borders our back pasture, so we need to think about water related issues.”

“The programs have really made it so John and I can do the work that needs to be done on the farm. We have about 108 animals now, some Scottish Highlands, some Belted Galloway, and mixtures, and we’re able to sell the beef. There’s a great market for the beef,” says Carolyn.

“We have a little store here at the farm now. Over half of our beef is sold right here, so we have that face connection with the customer,” says Carolyn. “As we show them around, we try to point out what we’ve been able to do with the help of NRCS. It really has made a difference.”



John and Carolyn Wheeler, owners of Wheel-View Farm

### Grassland Reserve Program (GRP)

GRP has helped landowners restore and protect grassland, rangeland, pastureland, shrubland and certain other lands, and provides assistance for rehabilitating grasslands. The program emphasizes support for grazing operations, plant and animal biodiversity, and land under the greatest threat of conversion.

“We’re hoping to make the farm viable so we can pass it on to our children and grandchildren,” says John. “We’re the fourth generation here on this farm. We’re hoping to keep it viable in some type of agriculture and be able to keep the land open.”

“I think any farmer is really concerned with their land, wants to conserve it and do the best that they can with it. It is sort of a passion,” says Carolyn. “It’s something you really feel strongly about: good stewardship of the land and keeping it open, keeping it productive. That’s something that’s really important to people who have worked the land for so many years.” ♦

GRP Massachusetts				
Fiscal Year	Rental Agreements	Acres	Amount*	
2003	4	118	\$154,000	
2004	24	550	\$531,146	
2005	23	857	\$755,709	
<b>Total</b>	<b>51</b>	<b>1525</b>	<b>\$1,440,855</b>	

\*Amount paid to landowners

# SERVING MASSACHUSETTS COMMUNITIES

## Resource Conservation and Development Program (RC&D)

### Berkshire-Pioneer RC&D

#### Berkshire-Pioneer joins partners to implement Massachusetts Farm Energy Program

The Massachusetts Farm Energy Program is a two-year statewide collaborative effort bringing together federal, state, industry and private support to streamline technical and financial assistance available to Massachusetts farmers for reducing their energy demand and increasing their profits. The Massachusetts Department of Agricultural Resources (MDAR) and NRCS are providing \$400,000 in funding and significant in-kind assistance.

Berkshire-Pioneer RC&D and Patriot RC&D are currently developing and implementing the program in partnership with the utility industry, Farm Bureau, Massachusetts Technology Collaborative, NRCS, MDAR, the Executive Office of Energy and Environmental Affairs and others. Technical assistance is being provided to farmers and agricultural businesses to increase use of existing energy programs.

Grant writing assistance for USDA's Renewable Energy and Energy Efficiency Grant program is currently being offered. In addition, a technical advisory group is developing a program that will assist farmers in obtaining – and in some cases will provide – energy audits and/or renewable energy assessments, provide financial incentives for implementation of audit recommendations, and identify and promote best management practices for farm energy systems. The focus of the program is to ensure that federal, state and industry investments in farm energy audits are tied to energy savings and generation.

#### Training provided to town agricultural commissions

For the second year, Berkshire-Pioneer RC&D has coordinated and co-sponsored two agricultural commission workshops in partnership with MDAR and others. Over 100 towns in Massachusetts have formed agricultural commissions. About half of those are in the four western counties that make up the Berkshire-Pioneer RC&D area. Most of these western commissions have, or are in the process of developing, right-to-farm by-laws for their town. These commissions are forming partially in response to sprawl and fragmentation of communities.

The commissions are charged with a variety of responsibilities including advocacy for farmers, protection of farmland and other natural resources, conflict resolution involving agriculture and consultation to town boards. Many members have asked for assistance and training. In response to this, over 100 participants received day-long training and information related to such topics as conflict resolution, land protection tools, wetlands regulations and other agricultural exemptions, as well as updates on legislation and the Massachusetts Farm Energy Program.

### Patriot RC&D

#### Regional horse manure management

The Patriot RC&D area has densely populated areas, particularly in Middlesex and Essex counties, which also contain substantial and expanding horse populations. Patriot RC&D obtained a grant from USDA's Rural Development agency that resulted in a business plan to be implemented when further funding is obtained. It compares three different ways to manage horse manure on a regional basis.

Horse owners represent an important component of commercial and recreational livestock in Massachusetts. It has been estimated that there are about 10,000 horse owners with a total of approximately 55,000 horses in Massachusetts. A large number of horse owners have only one or a few horses and often keep them on relatively small lots of one or two acres in areas that have historically been predominantly agricultural.

Many horse owners are not well versed in agriculture and nutrient management practices, and the management of their animals has increasingly become a concern to towns and communities as local boards of health pay more attention to nuisance odors and water quality impacts associated with having horses.

Planning for manure management includes alternatives for handling and/or disposal of manure by horse owners. Careful attention to this issue will greatly reduce the non-point source pollution threat and avoid future potential conflicts with neighbors and health officials.

The 2007 Patriot RC&D survey, conducted in partnership with the 4-H program in Middlesex County indicated that 95 percent of the horse owners surveyed kept their horses for personal use. Ninety-four percent of respondents said they handle their horse manure appropriately, but only six percent had a fence around their manure pile to prevent access by livestock, wildlife and people. Eighty-five percent of the survey respondents do not cover their manure pile and only half recognize that they might have a problem with pollution from run-off, flies and odor. Clearly, there is a need for more education on this topic.

## SERVING MASSACHUSETTS COMMUNITIES Resource Conservation and Development Program (RC&D)

### Pilgrim RC&D

#### Environmental Review Team studies conservation of cranberry land

At the request of the Town of Carver's conservation commission, Pilgrim RC&D, with technical assistance provided by NRCS, organized an environmental review team (ERT) study to develop a land use and management plan for former cranberry land on the Cole property. The plan was critical to the town's effort to acquire the 250 acre parcel for conservation, open space, recreation and public water supply development.

Nine specialists with expertise in soils, wetlands, forestry, water supply, wildlife biology, recreation, trails and greenways, and cranberry farm planning completed assessments of the property and provided management recommendations, maps, plans, and photos. The data was compiled into a comprehensive plan and submitted to the conservation commission for approval.

The plan was instrumental to the town in securing \$500,000 from the state Self Help Program for acquisition of the property. The town will continue to use the plan for development of the trails system, management of the forest land, cranberry bogs, and wildlife located on the property.

#### Homeland Security grant awarded

The Pilgrim RC&D Council and NRCS RC&D coordinator Irene Winkler provided grant writing services to the Carver Fire Department to successfully secure a \$168,000 grant from the Department of Homeland Security's Assistance to Firefighters Grant Program for personal protective equipment. In 2008, the fire department will receive new turn-out gear for each of their 78 members so they may be adequately protected while providing fire prevention, suppression, and rescue services for the Town of Carver and the 21 towns within the Plymouth County Mutual Aid District.

Firefighter safety is critical during wildfire fighting and wildfire prevention activities. Much of extreme southeastern Massachusetts is rated as having high potential for wildfires due to soils, vegetation, winds and proximity to suburban populations and development. The Carver Fire Department was previously equipped with turn-out gear that did not meet compliance standards of OSHA or the National Fire Protection Association.

The Myles Standish State Forest occupies 2,000 acres on the southeastern portion of the Town of Carver and another 13,000 acres in the Town of Plymouth. It is one of only four major pine barren ecosystems in the country. The pitch pine scrub oak forests located in the state forest and throughout this region burn fiercely and understory plants possess compounds that are highly flammable and ignite during dry periods.



### Resource Conservation & Development Areas

RC&D is a program of the United States Department of Agriculture (USDA). The program was created in 1962 and is based on the assumption that local citizens (RC&D Councils), with help provided through the USDA, can develop and carry out an action oriented plan for the economic, social and environmental enrichment of their communities.

The purpose of the RC&D Program is to promote conservation, development, and utilization of natural resources, to improve the general level of economic activity and to enhance the environment and standard of living in communities. The program's aim is to provide a system for rural development, encourage the wise use of natural resources, and improve the quality of life.

Massachusetts has three RC&D areas: Pilgrim, serving southeastern Massachusetts, Cape Cod and the Islands; Patriot, serving northeastern and central counties; and Berkshire-Pioneer, serving western Massachusetts.



## PARTNERSHIPS AT WORK

### Accelerated Conservation Planning Project (ACPP)



Liz McGuire surveys invasive plants



A landowner and planner discuss a conservation plan.

## State and federal partners combine resources to meet demand for conservation planning on Massachusetts farms

In 2004, the USDA Natural Resources Conservation Service (NRCS), Massachusetts Department of Agricultural Resources (MDAR) and the Massachusetts Association of Conservation Districts (MACD) joined forces to improve the delivery of federal and state conservation programs and services to Massachusetts farmers and other landowners by establishing the Accelerated Conservation Planning Project (ACPP).

Since then, ACPP has grown into a vibrant and successful partnership that has made significant contributions to accelerating conservation planning in the commonwealth.

ACPP planning and administrative staff, who are MACD employees, help MDAR and NRCS provide more comprehensive farmer assistance by being versed in the full array of state and federal government services available and providing direct assistance to farmers. ACPP staff have helped improve communication between the agencies and enhance knowledge of all government farm conservation programs.

Several state programs depend on NRCS assistance to farmers. For example, to be eligible for the Agricultural Environmental Enhancement Program (AEEP), a farmer must have an updated NRCS conservation plan, and to apply for the Agricultural Preservation Restriction (APR) Program a farmer needs a particular set of soils and land use maps. In the past, a heavy workload for federal conservation programs limited the availability of NRCS field staff to respond to MDAR customers. The ACPP partnership has helped to resolve this problem.

Here are some examples of ACPP accomplishments:

- With the number of NRCS-certified conservation planners in the state almost doubled since ACPP started, conservation planning and implementation of federal and state program contracts have been accelerated.
- When MDAR customers request customized maps for state program applications, trained ACPP employees in five of the seven NRCS field offices are able to provide them within days.
- The eight ACPP staff members are a valuable addition to the number of field personnel available to service walk-in customers at USDA service centers on a daily basis.
- Since NRCS does not have administrative assistants in its Massachusetts field offices, ACPP administrators frequently make the difference in whether the smaller offices can remain open to the public during business hours while other staff members are in the field.

ACPP staff members are recognized by farmers as providing excellent customer service in planning and program implementation and brief technical assistance. NRCS training and experience has further strengthened the ACPP staff's ability to provide high quality conservation technical assistance.

### Conservation districts lead local natural resource protection

This year, Massachusetts cranberry growers will mark the 14<sup>th</sup> year of a cranberry farm planning program that has helped them conserve and improve water and other natural resources. While that's a significant amount of time, the organization responsible for the program, the Plymouth County Conservation District (PCCD), has roots that stretch back seven decades and across the country to the Dust Bowl days that gripped the Great Plains for much of the 1930s.

Today, Massachusetts has 14 conservation districts that correspond with the commonwealth's county boundaries. Our conservation districts and the 3,000 others across the U.S., were born in a time of ecological and economic disaster that spawned an American soil and water conservation movement.

Conservation districts provide locally-led conservation programs that help farmers, other landowners and communities. Conservation districts work in partnership with NRCS by identifying local needs and priorities that guide the technical and cost-share assistance provided by NRCS.

Each conservation district is governed by a board of supervisors made up of landowners in the county who are elected and serve a three year term.

District supervisors come from a variety of backgrounds and professions – farmers, educators, business people, extension agents and retirees – but all share a personal or professional interest in natural resource conservation.

Many Massachusetts districts have just one part-time employee: an administrator who takes care of all business functions. Massachusetts conservation districts are

primarily funded through annual spring plant and tree sales. Some districts have found other innovative ways to raise money, for example the Plymouth County Conservation District sells “coyotes” – actually shooting targets – for use as a deterrent to Canada geese on cranberry bogs and athletic fields.

The Commonwealth consults with and advises conservation districts through the State Commission for the Conservation of Soil, Water and Related Resources. Each of Massachusetts' environmental agencies are represented on the State Commission, along with several agriculture and environmental organizations.

Dick Starkey, a past-president of the State Commission, explained that the duties and responsibilities of both the State Commission and districts are defined by a state law that allows much flexibility.

“The range of possible activities is considerable and mostly bounded by our imagination,” said Starkey. “Our fourteen districts cover the state and each district has different interests from most of the others. The most important point is that our efforts are led by local citizens.”

There are both commonalities and differences in natural resource needs and priorities across the state. While the need for manure management structures may be high on the list in Hampshire County in western Massachusetts, in Suffolk County -- which is primarily the city of Boston -- air quality is a top priority.

The Cape Cod Conservation District has seen significant change on the Cape. Although there is less agriculture now, the Cape has seen growth in the shellfish aquaculture industry. There is also growing

concern about natural resources and quality of life, according to Lee Davis, chair of the district's board of supervisors.

“Development pressure is our biggest challenge,” said Davis, who has served on the board for 35 years. “There is only so much land and land is very expensive, which is why we have less farmland today. People think nothing of building \$5 million houses these days. We're trying to keep land open by whatever means we can.”

Don Lambert, a retired vocational agriculture teacher who has been involved with the Hampden Conservation District since 1965, has seen Hampden County changing over the years. “There are more urban needs now, like development-related soil erosion and groundwater problems,” said Lambert.

“I see the need for urban and suburban assistance growing,” said Lambert. “The way the state legislation for conservation districts is written makes it possible for districts to do a great many things, not just limited to farming. We can help communities make wise choices.”

Marjorie Cooper, owner of Cooper's Hilltop Farm in Leicester, has served as a supervisor for the Worcester Conservation District for many years. Her service to the district grew out of her participation in other agricultural and environmental organizations.

The reason why conservation districts were formed more than 70 years ago is still valid today, according to Cooper. “Federal programs have to have local representation,” said Cooper. “You don't want to lose that. We have to help interpret for today's needs.”

Planners Iain Ward and Linda Rinta work with cranberry grower George Rogers (center).



MACD members visit shellfish beds



## Soil Survey



The National Cooperative Soil Survey (NCSS) is a nationwide partnership of federal, regional, state and local agencies; and private entities and institutions. This partnership works together to cooperatively investigate, inventory, document, classify, interpret, disseminate, and publish information about soils of the United States and its trust territories and commonwealths. The activities of the NCSS are carried out on national, regional, and state levels.

Soil surveys are used by farmers, real estate agents, land use planners, engineers and others who need information about soil resources.

### Massachusetts State Soil: Paxton Sandy Loam

In 1991, the Massachusetts State Legislature designated the Paxton series as the Official State Soil of the Commonwealth. The series was established in Worcester County Massachusetts in 1922, and is named for the town of Paxton where it was first described and mapped.

Paxton soils occur on about 400,000 acres of the 5.3 million acres in Massachusetts, predominantly throughout the state but exclude the Cape Cod area as well as Martha's Vineyard and Nantucket islands. They are also mapped throughout southern New England and include portions of New Hampshire, New York and Vermont.

The Paxton series consists of very deep, well drained loamy soils on glacial till uplands and are derived mostly from schist, gneiss, and granite. These soils formed in friable glacial till overlying firm, dense till. The dense till is the outstanding characteristic of the Paxton series.

Permeability is moderate in the surface layer and subsoil and slow or very slow in the substratum. Available water capacity is high. Reaction ranges from very strongly acid to moderately acid. A seasonal high water table is perched at a depth of 1.5 to 2.5 feet.

Paxton soils occur on gently sloping to steep convex slopes. Landforms include till plains, ground moraines, and drumlins. Where stones have been cleared and slopes are gentle, Paxton soils are well suited to cultivate crops, hay, and

improved pasture. Additional land uses include suburban housing and woodland production.

The main agriculture for Paxton soils are apples, corn, and silage. Paxton soils have a high water holding capacity and are well suited for intensive agricultural and woodland production. Trees commonly growing on Paxton soils include red, white, and black oak, hickory, sugar maple, red maple, gray and black birch, white pine, and hemlock.

#### Paxton Soil Profile

- **Surface layer:**  
Very dark grayish brown fine sandy loam
- **Subsoil:**  
Yellowish brown fine sandy loam
- **Substratum:**  
Olive gravelly fine sandy loam (dense till)



For soil maps and data, visit the Web Soil Survey at <http://websoilsurvey.nrcs.usda.gov> or call your local NRCS office.

## NRCS Massachusetts Funding - Fiscal Years 2003-2008

<b>TECHNICAL ASSISTANCE</b>	<b>FUNDS USED TO ADMINISTER PROGRAMS</b>					
DISCRETIONARY	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 *
Conservation Technical Assistance	\$3,381,993	\$3,552,618	\$3,286,038	\$2,980,496	\$2,749,503	\$2,599,602
Soil Survey	\$911,000	\$855,000	\$960,263	\$946,186	\$861,117	\$825,000
Watershed Surveys & Planning	\$170,000	\$128,500	\$542,685	\$136,676	\$284,470	
Watershed Rehabilitation	\$126,200	\$135,000	\$115,081	\$16,800	\$544,000	
Watershed and Flood Prevention Operations	\$490,000	\$243,000	\$376,903	\$122,300	\$1,049	
Resource Conservation & Development	\$365,200	\$396,192	\$396,538	\$400,873	\$422,574	\$435,666
Total discretionary funds	\$5,444,393	\$5,310,310	\$5,677,508	\$4,603,331	\$4,862,713	\$3,860,268
MANDATORY (FARM BILL)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 *
Environmental Quality Incentives Program (EQIP)	\$625,800	\$1,410,900	\$1,285,377	\$1,504,513	\$1,740,345	\$1,952,563
Wetland Reserve Program (WRP)	\$103,000	\$60,000	\$53,820	\$33,090	\$62,173	\$40,622
Farm and Ranchlands Protection Program (FRPP)	\$76,905	\$130,871	\$159,870	\$87,116	\$85,296	\$119,065
Wildlife Habitat Incentives Program (WHIP)	\$122,955	\$177,000	\$369,196	\$405,572	\$327,901	\$376,129
Conservation Security Program (CSP)			\$59,200	\$45,224	\$22,098	\$1,245
Grasslands Reserve Program (GRP)	\$36,500	\$174,700	\$212,059	\$3,670	\$2,624	\$2,494
Agricultural Management Assistance (AMA)	\$53,300	\$84,600	\$99,866	\$31,632	\$104,106	\$41,712
Conservation Reserve Program (CRP)			\$5,000	\$12,600	\$14,454	\$6,059
Ground & Surface Water Conservation				\$9,740		
Total mandatory funds	\$1,018,460	\$2,038,071	\$2,244,388	\$2,133,157	\$2,358,997	\$2,539,889
OTHER	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 *
Emergency Watershed Protection (EWP) Program	\$11,562		\$93,000	\$143,266	\$185,525	
EWP Hurricane					\$143,940	
Total other funds					\$329,465	
<b>TOTAL TECHNICAL ASSISTANCE</b>	<b>\$6,462,853</b>	<b>\$7,348,381</b>	<b>\$7,921,896</b>	<b>\$6,736,488</b>	<b>\$7,551,175</b>	<b>\$6,400,157</b>

<b>FINANCIAL ASSISTANCE</b>	<b>FUNDS PAID TO LANDOWNERS AND COMMUNITIES</b>					
DISCRETIONARY	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 *
Watershed and Flood Prevention Operations		\$1,172,444	\$191,689			
MANDATORY (FARM BILL)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 *
Environmental Quality Incentives Program (EQIP)	\$2,855,566	\$5,042,100	\$3,957,240	\$3,859,840	\$3,850,552	\$5,514,911
Wetland Reserve Program (WRP)	\$822,000	\$600,500	\$460,000	\$426,000	\$2,073,607	
Farm and Ranchlands Protection Program (FRPP)		\$4,395,945	\$4,588,989	\$3,670,202	\$3,875,889	\$5,577,494
Wildlife Habitat Incentives Program (WHIP)	\$785,000	\$720,510	\$1,184,764	\$1,431,634	\$1,163,869	\$1,224,134
Conservation Security Program (CSP)			\$37,400	\$25,658	\$18,784	\$14,331
Grasslands Reserve Program (GRP)		\$530,300	\$756,699			
Agricultural Management Assistance (AMA)		\$305,914	\$272,091			\$104,012
Forestry Incentive Program	\$1,580					
Total mandatory funds	\$4,464,146	\$11,595,269	\$11,257,183	\$9,413,334	\$10,982,701	\$12,434,882
OTHER	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 *
Emergency Watershed Protection (EWP) Program	\$75,563		\$720,418	\$510,384	\$927,621	
EWP Hurricane					\$712,988	
Total other funds					\$1,640,609	
<b>TOTAL FINANCIAL ASSISTANCE</b>	<b>\$4,464,146</b>	<b>\$12,767,713</b>	<b>\$11,257,183</b>	<b>\$9,413,334</b>	<b>\$12,623,310</b>	<b>\$12,434,882</b>
<b>TOTAL MASSACHUSETTS FUNDING</b>	<b>\$10,926,999</b>	<b>\$20,116,094</b>	<b>\$19,179,079</b>	<b>\$16,149,822</b>	<b>\$20,174,485</b>	<b>\$18,835,039</b>

\* FY 2008 allocation as of 3/26/2008

\*\* GRP and CRP financial assistance is administered through the Farm Service Agency

## NRCS Employee and Volunteer Vignettes



**William H. Taylor**  
*Acting State Soil Scientist*  
Massachusetts State Office, Amherst

When Bill Taylor finished high school he wanted to find a career where he could help the people of the world to produce the crops necessary to sustain mankind. He started by studying plant science at Florida A&M University, then one of his professors steered him into soils.

That change in course led to a long career as a soil scientist with NRCS. Bill joined the agency, then known as the Soil Conservation Service, in 1967 as a student intern in Watertown, New York. He later became a full-time employee, working in Lake George, New York, and Holden, Middleboro and Amherst, Massachusetts.

In Massachusetts he's served as Project Leader for Worcester County, Supervisory Soil Scientist for the Southeast Technical Area Office and eventually as Assistant State Soil Scientist.

Bill is proud of the three soil surveys he authored. He also assisted in the completion of three others. "This data will be used by the public for the next twenty years," he says.

A man of the earth, Bill is also a man of God, serving as a Baptist minister for the John Street Baptist Church in Worcester, Massachusetts. Bill and his wife Catherine have two sons and a daughter. In his free time, he enjoys playing golf.

"I feel that I have helped people by producing tools – like soil maps and interpretations – that are used to make wise land use decisions and increase productivity. It's about helping people help the land and the land helping us," says Bill.



**Rita Thibodeau**  
*District Conservationist*  
Greenfield Field Office

Rita Thibodeau knows Franklin County and the farms and farmers in it. It comes with the territory as District Conservationist for the NRCS office in Greenfield, Massachusetts. But it's also because she's a farmer, too.

Rita and her husband Ken Herzig run a 330-acre dairy and maple syrup operation in Colrain, Massachusetts. She joined NRCS in 1992 as a Soil Conservation Technician in the Northampton field office and later was promoted to Soil Conservationist and eventually District Conservationist in 2002.

"Farmers' daily struggles are the same as mine," says Rita. "So I go out in the weather to talk to farmers about what they really want to talk about. I understand their issues and concerns."

When it's raining or freezing outside is when Rita's office is busiest. "My phone is ringing and folks are dropping by. We get the paperwork done as efficiently as possible to devote our time to servicing the farmers who need our assistance," says Thibodeau.

Rita is proud that the Greenfield office usually exceeds its goals. The all-female staff, which includes Rita, Soil Conservationist Lisa Hall and Office Automation Assistant E.J. Hunnewell, has broken through to folks who otherwise might not have been willing to work with the federal government.

"I think we do so well because the farmers trust us and respect our opinion and our technical assistance. We're approachable and we listen to their ideas. We look at all the alternatives and try to work with them for the best solution to fit their problem," explains Rita.

Whether she's in the field or in the office, Rita Thibodeau works with farmers to bring conservation practices to fruition and they appreciate her efforts. "According to the farmers, we at NRCS are the good guys who make it possible to put conservation on the land. They know that their land matters to us."

## NRCS Employee and Volunteer Vignettes



**Vince Snyder**  
*Natural Resource Specialist*  
 Hadley Field Office

Vince Snyder enjoys experiencing nature, so dedicating his professional life to conservation only made sense. And his current position as a Natural Resource Specialist for NRCS is a natural fit.

“Working for NRCS gives me the opportunity to visit and help protect areas that the general public may not have access to,” says Vince. “I was hooked into conservation by my first job restoring wetlands in Pennsylvania. Later, delineating wetlands allowed me to appreciate some great environments prior to their development.”

Vince eventually became involved with farm-based conservation while working for soil and water conservation districts in Virginia, Maryland, and then joined NRCS in Massachusetts in 2002. In his free time, Vince enjoys bicycling and hiking with his wife and dogs. He is also an accomplished musician who plays mandolin and guitar with Acoustic Brew, a local bluegrass band.

As an NRCS Natural Resource Specialist, Vince works with farmers, like John Kokoski of Mapleline Farm in Hadley, to develop comprehensive nutrient management plans (CNMPs), a progressive planning tool. The Kokoski CNMP, which provided recommendations for applying manure and wastewater to meet the nutrient requirements of 85 acres of cropland, was one of the first to be signed and implemented in Massachusetts.

“Learning how to balance the agricultural use of the land with its natural resources and wildlife adds complexity to an already interesting profession,” says Vince. “Every day, working with nature can be a learning experience and a rewarding one. It’s great to know that my efforts are helping to preserve our planet’s resources for future generations.”



**Leonora Baddoo, Meghan Irving, June Yeung and Ida Ngambeki**  
*Smith College Picker Program Design Clinic students*  
 Earth Team Volunteers

A multi-cultural group of Smith College engineering students served as group volunteers for the Massachusetts Earth Team this past school year. From September 2006 to May 2007, the volunteers worked with NRCS staff and partners to design a culvert for the restoration of the Weir Creek Salt Marsh in Dennis, Massachusetts.

The 1,658 volunteer hours that the team logged over the school year were not only an academic experience but became valuable real life work experience. “I learnt a lot from doing this project, it covered a lot of ground and allowed us to do a variety of tasks,” said Ida Ngambeki of Uganda. “It also provided me with a chance to see the workings of NRCS and their commitment to the environment.”

Ida and her fellow students, Leonora Baddoo of Ghana, June Yeung, originally of Hong Kong, and Meghan Irving of New Hampshire worked in collaboration with NRCS, Massachusetts Wetland Restoration Program and the Town of Dennis to prepare a final design for the salt marsh restoration culvert improvement. The final design and specifications will be used by NRCS and the town for obtaining funding, permits, and as a construction package for implementation.

The volunteers researched salt marshes, modeled tidal flow into the marsh, planned and developed alternatives for the site, then prepared a design, construction specifications, and a cost estimate. Over the course of the project NRCS engineering and ecological resources staff and the partner agencies provided reference materials, assisted the students in surveying the project site and provided guidance.

### Join the Earth Team

Visit us online or call Carol Rickless at 413-253-4350 for information on how to become part of the Earth Team. [www.ma.nrcs.usda.gov](http://www.ma.nrcs.usda.gov)

# Massachusetts Agricultural Profile

Massachusetts agriculture today shows promise as a dynamic and vital industry. Though Massachusetts farms are small, local farmers are discovering ways to make their farms more viable by getting the most from each acre. Farmers are responding to challenges like high production costs and development pressure, and they are finding ways to benefit from their close proximity to consumers.

## Cash Receipts - 2005

### Massachusetts

#### CROPS

Hay	\$7,870,000
Tobacco, Broadleaf	\$7,949,000
Fall Potatoes	\$5,207,000
Sweet Corn	\$15,732,000
Other Vegetables	\$40,670,000
Apples	\$12,929,000
Peaches	\$1,485,000
Cranberries	\$49,693,000
Other Berries	\$6,858,000
Other Fruit	\$3,002,000
Maple Syrup	\$2,048,000
Greenhouse/Nursery	\$145,550,000
All Other Crops	\$14,050,000
<b>Total Crops</b>	<b>\$313,043,000</b>

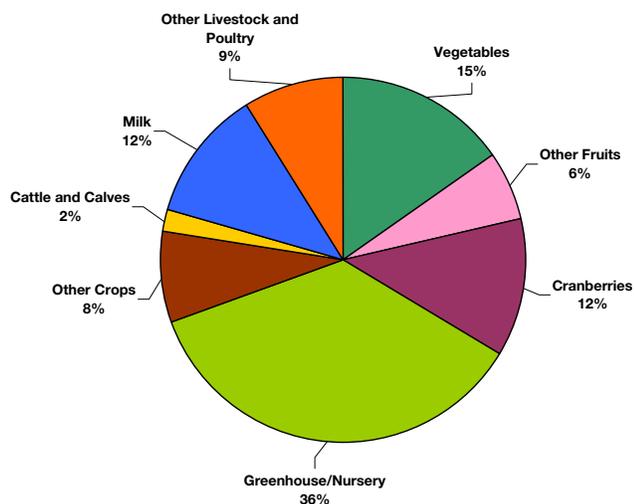
#### LIVESTOCK

Cattle and Calves	\$8,280,000
Hogs and Pigs	\$1,832,000
Milk	\$47,355,000
Chickens	\$4,000
Chicken Eggs	\$3,591,000
Turkeys	\$2,239,000
Other Poultry	\$4,805,000
Aquaculture	\$8,417,000
All Other Livestock	\$14,476,000
<b>Total Livestock</b>	<b>\$90,999,000</b>

**ALL COMMODITIES \$404,042,000**

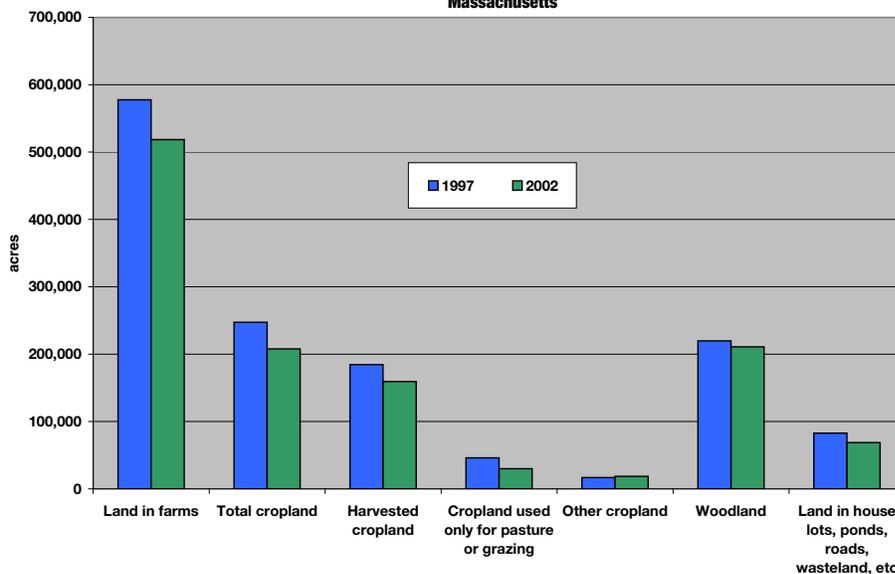
## Agricultural Cash Receipts

Massachusetts - 2005



## Agricultural Land Use

Massachusetts



## Agricultural Land Use in Massachusetts

In acres	1997	2002
Land in farms	577,637	518,570
Total cropland	247,267	207,734
Harvested cropland	184,480	159,253
Cropland used only for pasture or grazing	46,060	29,858
Other cropland	16,727	18,623
Woodland	219,765	210,891
Land in house lots, ponds, roads, wasteland, etc.	82,703	68,666

### FACT:

Ten Massachusetts counties rank in the top 150 U.S. counties for sales of farm products sold directly to consumers. Of the nation's 3,066 counties, here's how Massachusetts counties rank: Worcester 4th, Middlesex 6th, Essex 25th, Bristol 38th, Hampshire 42nd, Barnstable 101st, Berkshire 112th, Franklin 116th, Plymouth 131st, and Norfolk 149th.

Conservation is important to all Massachusetts citizens because it safeguards fresh air, pure water, healthy soils, scenic vistas, productive farms and habitat for wildlife. It is essential to the quality of life that all Massachusetts citizens expect. Conservation is important not only on farms but also in communities and backyards across the Commonwealth.

## Massachusetts Agriculture

• Number of farms.....	6,100
• Farmland .....	520,000 acres
• Average farm size .....	85 acres
• Agricultural cash receipts .....	\$404 million
• Sales of farm products sold directly to consumers .....	\$31 million
• New England rank for direct sales to consumers .....	#1
• Percentage of N.E. total .....	38 percent
• National rank for direct sales to consumers.....	#7
• National rank for direct sales as a percent of total sales .....	#1
• Percentage of family-owned farms .....	80 percent
• Percentage defined as “small farms” by USDA .....	93 percent
• Annual expenses for farm inputs .....	\$238 million
• Average per acre value of farmland.....	\$10,500
• National rank for farmland value.....	#4
• Net farm income per acre .....	\$63
• Year-round farm workers .....	5,000
• Seasonal farm workers .....	9,000
• Wages paid by farms.....	\$99 million
• Average age of principle operator .....	55 years
• Income tax revenue generated .....	\$21 million

Sources: New England Agricultural Statistics, 2006 and U.S. Census of Agriculture, 2002.

## Conservation in Massachusetts

• Farmland lost since 1977.....	57,359 acres
• Agricultural land converted to developed uses 1992-1997.....	27,200 acres
• State rank by percentage of ag. land developed .....	2
• Average annual rate of ag. land developed.....	5,440 acres
• Farmland protected through ag. restrictions since 1977 * .....	60,000 acres
• State dollars spent on agricultural restrictions since 1977 * .....	\$168 million
• Farmland protected with federal funds.....	5,052 acres
• Federal dollars spent on agricultural restrictions since 2002 .....	\$19 million
• Towns with protected farmland * .....	152
• Land for which conservation plans were written in 2007.....	19,746 acres
• Cropland with conservation applied to improve soil quality in 2007 .....	21,323 acres
• Land with conservation applied to improve water quality in 2007.....	23,270 acres
• Land with conservation applied to improve irrigation efficiency in 2007.....	1,637 acres
• Grazing and forest land with conservation applied in 2007.....	3,971 acres
• Land with conservation applied to improve fish and wildlife habitat quality in 2007.....	3,301 acres
• Wetlands created, restored or enhanced in 2007.....	1,124 acres

Sources: USDA Natural Resources Conservation Service, American Farmland Trust and Massachusetts Department of Agricultural Resources

\*Estimated figures compiled from various sources.

# ABOUT MASSACHUSETTS

## Massachusetts at a Glance

### Topography

Massachusetts topography varies greatly. The landscape changes from coastal rocky shores, sandy beaches and salt marshes to rolling hills, fertile valleys and rich woodlands in the west.

### Soils

Massachusetts soils vary widely in color and in character. Broadly speaking, the uplands contain an abundance of mineral matter, while organic matter is dominant in the lowlands.

The western region is hilly, containing parts of the Berkshire, Taconic and Hoosac mountain ranges. The Connecticut River Valley separates the hilly west from the eastern part of the state. A central upland plateau region slopes down to meet the Atlantic Ocean. Almost all of this land was originally covered with dense forests, except on Cape Cod where there are still long stretches of sandy, treeless flats.

Even after the forests were cleared or thinned, the soil did not yield readily to cultivation by the early farmers, and their skill and patience were tried before the land became productive. Rich alluvial deposits are found in the fertile river valleys. The most arable soil is found in the broad Connecticut River Valley in the west-central part of Massachusetts.

### Lakes

Massachusetts has more than 1,100 lakes and ponds.

The largest of these are the man-made Quabbin (24,704 acres) and Wachusett (4,160 acres) reservoirs. These two reservoirs will provide Metropolitan Boston with most of its water for many years to come.

### Climate

Average monthly temperatures in Boston range from 28.2 degrees in January to 72.0 degrees in July. The lowest temperature recorded by the U.S. Weather Bureau in Gloucester since its establishment (October 1870) was -18 degrees in February 1934; the highest, 104 degrees in July 1911.

The last killing frost generally occurs before May 10, and the earliest fall frost usually comes in late September or early October.

The normal average annual precipitation is 44.23 inches.

### Rivers

There are 4,230 miles of rivers within the Commonwealth of Massachusetts.

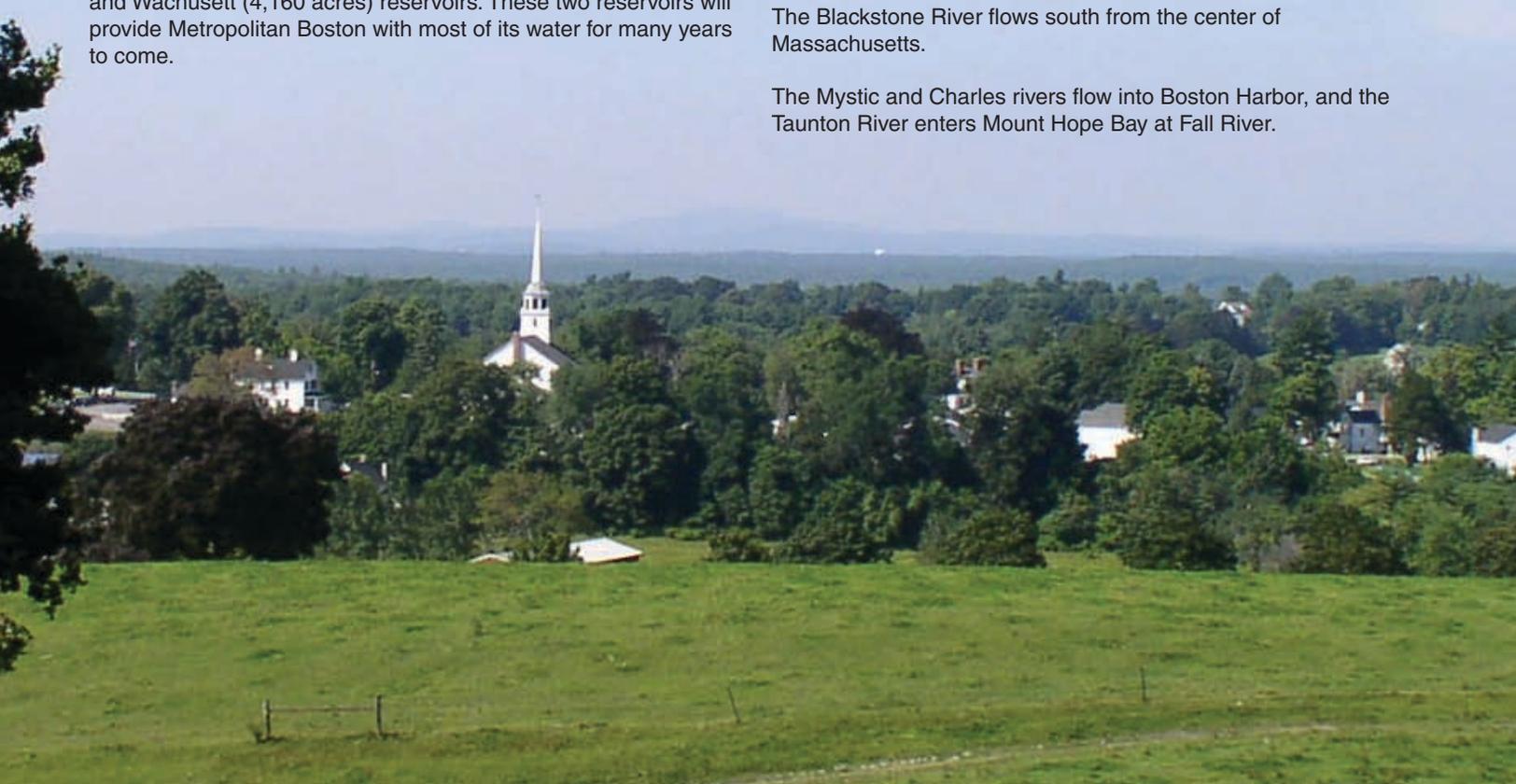
The largest is the Connecticut River, which flows from north to south. Its tributaries are the Deerfield, Westfield, Chicopee, and Miller's rivers.

In the far western part of the state the Housatonic River flows south and the Hoosic River flows north between the Hoosac and Taconic mountain ranges.

The Merrimack River, in the northeast, rises in New Hampshire and empties into the Atlantic Ocean. It is navigable for shipping up to a distance of about 15 miles from its mouth. The Nashua and Concord rivers are tributaries of the Merrimack.

The Blackstone River flows south from the center of Massachusetts.

The Mystic and Charles rivers flow into Boston Harbor, and the Taunton River enters Mount Hope Bay at Fall River.



# ABOUT MASSACHUSETTS

## Massachusetts at a Glance

### Population and area

Massachusetts, according to the 2000 United States census, has a population of 6,349,097. It has a gross area of 8,257 square miles and a net land area of 7,838 square miles, and ranks 13th in population and 45th in area among the states of the nation. It is divided into 14 counties, made up of 50 cities and 301 towns, of which Boston with a population of 589,141 is the largest and Gosnold with a population of 86 is the smallest.

### Counties

The 14 counties, moving roughly from west to east, are Berkshire, Franklin, Hampshire, Hampden, Worcester, Middlesex, Essex, Suffolk, Norfolk, Bristol, Plymouth, Barnstable, Dukes and Nantucket.

In 1997, Middlesex county government was abolished followed by the abolition of Berkshire, Essex, Hampden and Worcester county governments. Their functions were turned over to state agencies. Counties as geographical/political regions were not abolished or restructured.

### Municipalities

The cities of Massachusetts are governed by Mayors and City Councils, but towns are usually governed by groups of officials called Selectmen. A Board of Selectmen is usually elected for a one-or-two-year term. Town meetings, a tradition from Colonial times, are still held regularly.

### Congressional districts and delegation

Massachusetts has ten congressional districts. The Massachusetts congressional delegation includes Sen. Edward M. Kennedy (D), Sen. John F. Kerry (D), Rep. John Olver (D-1<sup>st</sup>), Rep. Richard E. Neal (D-2<sup>nd</sup>), Rep. James P. McGovern (D-3<sup>rd</sup>), Rep. Barney Frank (D-4<sup>th</sup>), Rep. Nikki Tsongas (D-5<sup>th</sup>), Rep. John F. Tierney (D-6<sup>th</sup>), Rep. Edward J. Markey (D-7<sup>th</sup>), Rep. Michael Capuano (D-8<sup>th</sup>), Rep. Stephen F. Lynch (D-9<sup>th</sup>), Rep. William Delahunt (D-10<sup>th</sup>).

### Key conservation issues in Massachusetts

- Open space and farmland protection
- Water quality and quantity
- Local food production
- Farm viability enhancement
- Cranberry industry sustainability
- Dairy industry sustainability

**Massachusetts is one of the original 13 states (6th) of the Union (February 6, 1788). Boston, the capital, dates from 1630.**

- **OFFICIAL NAME:**  
Commonwealth of Massachusetts
- **NICKNAME:**  
Bay State
- **CAPITAL:**  
Boston
- **MOTTO:**  
*Ense Petit Placidam Sub Libertate Quietem*  
(By the Sword We Seek Peace, But Peace Only Under Liberty)

**Population:** 6,349,097 (2000 Census)

#### Chief cities and their populations:

- Boston ..... 589,141
- Worcester ..... 172,648
- Springfield ..... 152,082
- Lowell ..... 105,167
- Cambridge ..... 101,355
- New Bedford ..... 93,768
- Brockton ..... 94,304
- Fall River ..... 91,938
- Lynn ..... 89,050
- Quincy ..... 88,025

#### Geography:

- **AREA:**  
Land ..... 8,257 square miles  
Water ..... 4,633,426 acres
- **LARGEST BODY OF WATER:**  
Quabbin Reservoir (39 square miles)
- **LONGEST RIVER:**  
Charles River (80 miles)
- **HIGHEST ELEVATION:**  
Mt. Greylock (3,491 feet)
- **LOWEST ELEVATION:**  
Atlantic Ocean
- **NUMBER OF STATE PARKS:**  
107
- **LARGEST STATE PARK:**  
October Mountain State Forest, Lee (15,710 square acres)
- **NUMBER OF NATIONAL HISTORICAL PARKS, SEASHORES AND HISTORIC SITES:**  
12
- **LARGEST NATIONAL AREA:**  
Cape Cod National Seashore (43,500 square acres)

#### Government:

##### Constitutional Officers:

- **GOVERNOR**  
Deval Patrick
- **LIEUTENANT GOVERNOR**  
Timothy Murray
- **SECRETARY OF THE COMMONWEALTH:**  
William Francis Galvin
- **TREASURER AND RECEIVER GENERAL:**  
Timothy P. Cahill
- **ATTORNEY GENERAL:**  
Martha Coakley
- **AUDITOR:**  
A. Joseph DeNucci

#### Legislature:

- **OFFICIAL NAME** ..... General Court
- **SENATE:**  
40 members elected every two years
- **HOUSE OF REPRESENTATIVES:**  
160 members elected every two years

# CONTACT US

## NRCS offices

### Massachusetts State Office

451 West Street  
Amherst, MA 01002  
413-253-4350

- Christine Clarke, State Conservationist  
christine.clarke@ma.usda.gov

### Barnstable Field Office

Serving Barnstable, Dukes and Nantucket counties  
270 Communications Way, Unit 1G  
Hyannis, MA 02601  
508-771-6476

- Donald Liptack, District Conservationist  
donald.liptack@ma.usda.gov

### Greenfield Field Office

Serving Franklin County  
55 Federal Street, Room 290  
Greenfield, MA 01301  
413-772-0384 Ext. 3

- Rita Thibodeau, District Conservationist  
rita.thibodeau@ma.usda.gov

### Hadley Field Office

Serving Hampden and Hampshire counties  
195 Russell Street, Suite B6  
Hadley, MA 01035  
413-585-1000 Ext. 3

- Dwane Coffey, District Conservationist  
dwane.coffey@ma.usda.gov

### Holden Field Office

Serving Worcester County  
52 Boyden Road, Room 10  
Holden, MA 01520  
508-829-4477 Ext. 3

- Dan Lenthall, Acting District Conservationist  
daniel.lenthall@ma.usda.gov

### Pittsfield Field Office

Serving Berkshire County  
78 Center Street, Suite 206  
Pittsfield, MA 01201  
413-443-1776 Ext. 3

- Kate Parsons, District Conservationist  
kate.parsons@ma.usda.gov

### Westford Field Office

Serving Essex, Middlesex and Suffolk counties  
319 Littleton Road, Suite 205  
Westford, MA 01886  
978-692-1904 Ext. 3

- Daniel Lenthall, District Conservationist  
daniel.lenthall@ma.usda.gov

### West Wareham Field Office

Serving Bristol, Norfolk and Plymouth counties  
15 Cranberry Highway  
West Wareham, MA 02576  
508-295-5151 Ext. 2

- Leonard Reno, District Conservationist  
len.reno@ma.usda.gov

## Conservation Districts

### Berkshire Conservation District

78 Center Street, Suite 206  
Pittsfield, MA 01201  
413-443-6867 Ext. 4 | [www.berkshireconservation.org](http://www.berkshireconservation.org)

### Bristol Conservation District

P.O. Box 475, 84 Center Street  
Dighton, MA 02715  
508-669-6558 | [www.bristolcd.org](http://www.bristolcd.org)

### Cape Cod Conservation District

P.O. Box 678  
Barnstable, MA 02630  
508-771-8757 | [www.capecodcd.org](http://www.capecodcd.org)

### Dukes Conservation District

P.O. Box 111  
West Tisbury, MA 02575  
508-645-9734

### Essex Conservation District

562 Maple Street  
Hawthorne, MA 01937  
978-774-5578

### Franklin Conservation District

55 Federal Street, Room 290  
Greenfield, MA 01301  
413-772-0384 Ext. 110

### Hampden and Hampshire Conservation Districts

195 Russell Street, Suite B6  
Hadley, MA 01035  
413-585-1000 Ext. 5

### Middlesex Conservation District

319 Littleton Road, Suite 205  
Westford, MA 01886  
978-692-9395 | [www.middlesexconservation.org](http://www.middlesexconservation.org)

### Nantucket Conservation District

P.O. Box 1146  
Nantucket, MA 02554  
508-228-7244

### Norfolk Conservation District

400 Main Street  
Walpole, MA 02018  
508-668-0995

### Plymouth County Conservation District

15 Cranberry Highway  
West Wareham, MA 02576  
508-295-5151, Ext. 4 | [www.plymouth.ma.nacdnet.org](http://www.plymouth.ma.nacdnet.org)

### Suffolk Conservation District

P.O. Box 245  
Boston, MA 02121  
617-451-9141

### Worcester County Conservation District

52 Boyden Road, Room 100  
Holden, MA 01520  
508-829-4477 Ext. 5 | [www.seedlingsale.org](http://www.seedlingsale.org)

## RC&D offices

### Berkshire-Pioneer RC&D Area

433 West Street, Suite 8  
Amherst, MA 01002  
413-256-1607 Ext. 3 | [www.berkshirepioneerccd.org](http://www.berkshirepioneerccd.org)

- Darlene Monds, Coordinator  
darlene.monds@ma.usda.gov

### Patriot RC&D Area

319 Littleton Road, Suite 302  
Westford, MA 01886  
978-692-1904 Ext. 108 | [www.patriotccd.org](http://www.patriotccd.org)

- Stephanie Wilsen, Coordinator  
stephanie.wilsen@ma.usda.gov

### Pilgrim RC&D Area

15 Cranberry Highway  
West Wareham, MA 02576  
508-295-1317 | [www.pilgrimccd.org](http://www.pilgrimccd.org)

- Irene Winkler, Coordinator  
irene.winkler@ma.usda.gov

## Massachusetts Association of Conservation Districts

President - Kimberly LaFleur, Plymouth  
Vice President - Les Hemmila, Cape Cod  
Secretary - Carolyn Ness, Franklin  
Treasurer - Rob Russell, Bristol

## State Commission for the Conservation of Soil, Water and Related Resources

Thomas Anderson, Executive Secretary  
100 Cambridge, 9th Floor  
Boston, Massachusetts 02114  
(617) 626-1013  
[thomas.anderson@state.ma.us](mailto:thomas.anderson@state.ma.us)

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

[www.ma.nrcs.usda.gov](http://www.ma.nrcs.usda.gov)