

## Vermont in the National Landscape

### Vermont Dairy: Strength (and Challenges) in Numbers

There is a strong and dynamic farming history in the State of Vermont, and the majority of farm production comes in the form of dairy. Today, dairy farming accounts for almost 73% of the gross farm income in Vermont.

The ratio of total cattle and calves inventory to total cropland acres is .46. This number is double that found in other high dairy states in our region, and it exemplifies the challenges facing Vermont in addressing water quality concerns.



### 2010 Farm Bill Program Funding\*

NRCS Program	Dollars Obligated	Number of Contracts/Easements
Conservation Stewardship Program (CSP)	\$35,471	7
Environmental Quality Incentives Program (EQIP)	\$8,682,731	419
Agricultural Management Assistance (AMA)	\$242,105	19
Wildlife Habitat Incentives Program (WHIP)	\$1,028,214	117
Grassland Reserve Program (GRP)	\$565,847	1
Wetlands Reserve Program (WRP)	\$1,254,588	10
Farm and Ranch Lands Protection Program (FRPP)	\$3,005,720	21

\*The numbers reflect Financial Assistance (FA) that is provided directly to landowners. Technical Assistance (TA) funding was also received by the Agency for professional planning and expertise to help carry out the conservation activities.

### Conserving Farmland, "Another" Vermont Tradition

Vermont was the first state in the nation to receive USDA funding for farmland preservation. The *Farms for the Future Act* was piloted in Vermont from 1992 to 1995 and instituted a loan system to assist state established programs purchase farmland conservation easements. During this three year period, approximately 9,000 acres of farmland were conserved.

Vermont continues to be a national leader in conserving farmland. As one of the largest participants in the *Farm and Ranchland Protection Program* (FRPP), NRCS Vermont has conserved over 55,000 acres of farmland. In 2010, Vermont was ranked #2 in the nation for total farmland parcels conserved and #3 in the nation in total farmland acres enrolled in FRPP.

### At the Heart of a Forested Wildlife Corridor

The Northern Appalachian region spans about 88 million acres, across two countries, six states, and four provinces. This region is considered to have one of the most intact temperate broadleaf forests in the world, but its' wildlife is threatened by forest fragmentation, development, invasive species, and climate change.

Vermont is a key state within this region, providing crucial North-South and East-West landscape level connections for wide ranging animals, such as bear and moose. This forested region is also known to support some of the highest densities of breeding bird species in the continental United States. Vermont's participation in the New England / NY Forestry Initiative is aimed at the mission of keeping northern forest as forest.

*Of the 103 conservation practices available to farmers in Vermont in 2010, resources were distributed to:*

- 1) benefit surface and ground water quality through implementation of structural agricultural waste management practices;
- 2) improvements to water quality and plant condition from fencing, watering facilities and other pasture management practices;
- 3) reduction of soil erosion through improved cropland management;
- 4) creation or maintenance of early successional habitat through wildlife habitat practices;
- 5) improved forest health, water quality and wildlife habitat with forest management plans;
- 6) wetland restoration and enhancement practices;
- 7) water quantity benefits by improving efficiency of existing irrigation systems.

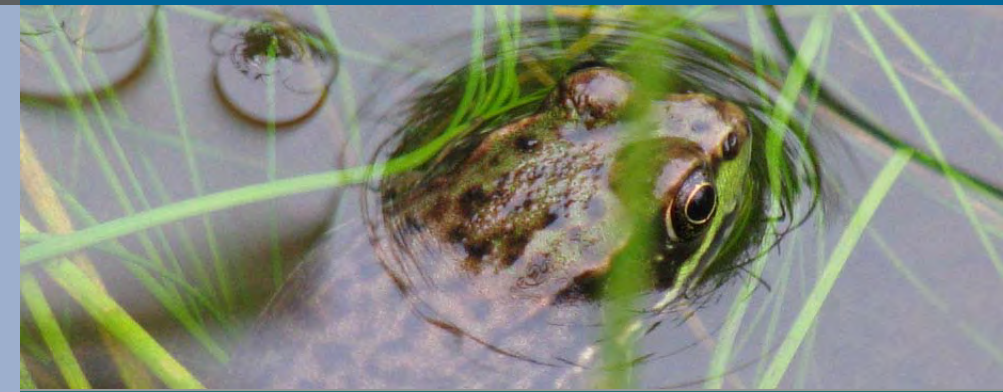
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### Who We Are

Inspired by a shared passion for conservation, NRCS collaborates with farmers, ranchers, communities, and other individuals and groups to protect natural resources on private lands.

Working side-by-side with these customers, we identify natural resource concerns, such as water quality and quantity issues, soil erosion, air quality, wetlands and wildlife habitat, and develop unique conservation plans for restoring and protecting resources. Funds to implement these plans are made available in Farm Bill programs that share the cost of conservation for the benefit of the farm, the watershed, and the community. Conservation easement programs, also in the Farm Bill, provide long-term options.

NRCS helps Vermont and the Nation balance economic goals with the needs of the environment — ensuring sustainably productive lands that supply food, fiber, forest products, and energy for all citizens.



A green frog *Lithobates clamitans* enjoys a fresh water swim at a Vermont Wetland Reserve Program (WRP) site. This voluntary program offers landowners the opportunity to protect, restore, and enhance wetlands on their property.

### Clean Water and Abundant Wildlife: NRCS and Landowners Working Together to Restore Wetlands in the Otter Creek Watershed

Functioning wetlands help improve water quality, provide valuable wildlife habitat and provide recreation opportunities for residents and visitors to the state of Vermont. According to the Vermont Department of Fish and Wildlife, 50% of Vermont's historic wetlands have been destroyed or impaired due to industrial, residential and agricultural land uses.

Using the Wetlands Reserve Program (WRP), NRCS Vermont has worked with 41 private landowners to permanently protect and restore wetlands in the Otter Creek Watershed. These efforts have resulted in:

- **Ensuring permanent protection of 1,635 acres of wetlands.** An additional 1,395 acres are in the WRP planning process and will be protected under permanent easements next year.
- **Wildlife habitat protection.** Monitoring completed by a local Audubon chapter shows that a 356 acre WRP site in Rutland County provides habitat for 106 different species of birds and 19 different species of butterflies.
- **Restored backwater wetlands increase fish spawning.** Northern pike and eleven other species of fish, of various age classes, have been documented in the restored wetlands and floodplains indicating prime spawning, refuge, and feeding habitat.
- **Water quality Improvement and Recreation Benefits.** Restored wetlands along Otter Creek provide flood water storage; help trap, store and filter sediment and nutrients; and provide hunting, fishing and wildlife viewing opportunities for residents and visitors to the State of Vermont.
- **Economic Gains.** Easements alone have infused \$1.4 million into the local economy, in addition to providing employment for local land surveyors and local earthmoving contractors.

### Local Food System Development with Seasonal High Tunnels

**Issue:** Vermonters spend over \$2 Billion per year on mostly imported food, increasing transportation and energy costs, reducing quality

**What NRCS VT is doing:**

In line with USDA’s Strategic Plan to enhance rural prosperity through the development and support of regional food systems, NRCS announced a pilot program in 2010 to evaluate the environmental benefits associated with seasonal high tunnels. High tunnels (often called hoop houses) cover crops, protect soil and extend the growing season in an environmentally safe manner.

In 2010, 94 EQIP and AMA applications were funded for seasonal high tunnels. The seasonal high tunnel program corresponds nicely with the statewide goals of strengthening local economies, maintaining the working landscape, and providing fresh, healthy, locally grown food. It has been estimated that a 5% increase in farming and food manufacturing in Vermont will generate \$135 million in additional annual production output for the state.

Programs Used: (EQIP) and (AMA)



The 94 Seasonal High Tunnels funded through EQIP and AMA in 2010 will increase fresh, healthy, locally produced food in local and regional markets.

### Water Quality in the Lake Champlain Basin

**Issue:** Toxic algae blooms endanger ecosystem and prohibit recreation

**What NRCS VT is doing:**

Widespread concern is felt across the region regarding the water quality of Lake Champlain and its tributaries. Excessive phosphorus in surface waters transported to the Lake has resulted in toxic algae blooms and excessive aquatic plant growth. A large portion of the Basin is in intensive agricultural use, which has been determined to be the primary source of phosphorus in those areas.

Between 2000 and 2010, Vermont NRCS implemented \$11,366,059 in financial assistance through EQIP and AMA for key conservation practices focused on improving water quality in the Lake Champlain Basin. With the support of our partners, NRCS is accelerating the implementation of wetland restoration through WRP. NRCS has coordinated with federal and state agencies to expand technical assistance capabilities utilizing funds acquired through the Great Lakes Fishery Commission, and has begun to implement two targeted watershed treatment programs.

Programs Used: (EQIP), (AMA) and (WRP)



Wetland restoration through WRP, and investments in Waste Storage Facilities and Heavy Use Area Protection through EQIP and AMA, are working to improve water quality in Lake Champlain.

### New England / New York Forestry Initiative

**Issue:** Forest-dominated region faced with development pressure; forest fragmentation threatens long term forest stewardship

**What NRCS VT is doing:**

In 2010, NRCS Chief Dave White worked with Vermont and six other Northeastern states in developing the New England – New York Forestry Initiative, offered through the Wildlife Habitat Incentive Program (WHIP). The goal of this Initiative is to promote exemplary stewardship among private landowners by assisting with the management of their forest land to improve forest health and productivity, wildlife habitat and water quality.

Core conservation practices eligible for funding include, but are not limited to, early successional habitat management, invasive plant control, forest trails and landings and forest stand improvement. In 2010, Vermont obligated \$890,000 for forest based practices through WHIP with an additional \$1 million through the EQIP Forestry Pool. Nearly \$250,000 were used to write 161 Forest Management Plans for these obligations, which cover 24,735 acres of Vermont forestland. Landowners are assisted with management of their forest resources to improve forest health and productivity, wildlife habitat and water quality.

Programs Used: (EQIP) and (WHIP)



Forest stand improvement can improve forest health, productivity and wildlife habitat. Vermont is 75% forested, making it the fourth most heavily forested state in the country.

## Conservation Technical Assistance (CTA)

is the core approach NRCS has used successfully for 75 years to reach out to all American farmers and ranchers. Through CTA, America invests in conservation by investing in American farmers and ranchers, and the technical assistance they need to care for the 70+% of our land, water and other natural resources that are in their hands.

CTA is simply about helping people. NRCS employees provide conservation options, recommendations, planning, and engineering assistance to individual farmers, ranchers, local governments, and urban landowners. This prepares the way for using Farm Bill and other conservation funding by providing—

### Technical Planning and Design:

- Agronomy
- Soils
- Engineering
- Rangeland
- Forestry
- Wetlands

### Project Coordination:

- State Environmental Regulation
- Archeological Permits
- Necessary Environmental Consultations
- Professional Coordination

### Cost Share Programs for Working Lands:

**Environmental Quality Incentives Program (EQIP)** - assistance for a broad spectrum of conservation practices that promotes agricultural production, forest management and environmental quality.

**Wildlife Habitat Incentive Program (WHIP)** - improves wildlife habitat on private agricultural, forest and Tribal lands.

**Agricultural Management Assistance (AMA)** - assists agricultural producers to manage risk and voluntarily address issues such as water management, water quality, and erosion control.

**Cooperative Conservation Partnership Initiative (CCPI)** - a partnered program that uses 6% of EQIP, WHIP and CSP funds for an integrative, focused approach.

### Easement and Long-Term Rental:

**Farm and Ranch Lands Protection Program (FRPP)** - helps keep farm and ranch land in agriculture.

**Wetlands Reserve Program (WRP)** - restores wetlands and wetland habitat on marginal agricultural land.

**Grassland Reserve Program (GRP)** - helps landowners restore and protect grassland, rangeland and pastureland, and maintain viable ranching operations.

**Conservation Reserve Program (CRP)** - pays farmers to plant trees, grass and brush on highly erodible / environmentally sensitive cropland. NRCS provides technical assistance only.

### Stewardship:

**Conservation Stewardship Program (CSP)** - encourages producers to embrace long-term comprehensive conservation, maintaining and improving existing practices.

### Watershed/Community-Wide Programs

**Emergency Watershed Protection Program (EWP)** - undertakes emergency measures on watersheds damaged by fire, flood and other natural calamities to prevent erosion and runoff that could endanger lives and property.

**Resource Conservation and Development (RC&D)** - improves economics and quality of life in an area through prudent use and conservation of natural resources.