

2022 REPORT VERMONT AGRICULTURAL WATER QUALITY PARTNERSHIP

Woodnotch Farm Inc. in Orwell, VT



LAKE CHAMPLAIN BASIN
PROGRAM

UNITED STATES FISH &
WILDLIFE SERVICE

UNIVERSITY OF VERMONT
EXTENSION

USDA NATURAL RESOURCES
CONSERVATION SERVICE

USDA FARM SERVICE
AGENCY

VERMONT AGENCY OF
AGRICULTURE, FOOD &
MARKETS

VERMONT ASSOCIATION OF
CONSERVATION DISTRICTS

VERMONT AGENCY OF
NATURAL RESOURCES,
DEPARTMENT OF
ENVIRONMENTAL
CONSERVATION

VERMONT HOUSING AND
CONSERVATION BOARD

INVESTMENTS AND IMPACTS

State and Federal Commitment to Water Quality

AGRICULTURAL PROJECT INVESTMENTS AND PHOSPHORUS
REDUCTION PROGRESS

- *\$25.9 million dollars invested for implementation of agricultural water quality and conservation projects on Vermont Farms
- 41.8 metric tons estimated phosphorus load reduction from agricultural sector
- 19% of Lake Champlain Basin and 13% of Lake Memphremagog Basin Total Maximum Daily Load required phosphorus reductions met through clean water programs
- Agriculture contributed over 96% total reported phosphorus reductions for VT across all land use sectors in both the Lake Champlain and Lake Memphremagog Basins of VT

ON-FARM IMPLEMENTATION

Best Management Practice Implementation

95,000 ACRES ANNUAL CROPLAND IN VT

- 41,876 acres of cover crop (pictured above) and 10,676 acres of conservation tillage to reduce erosion and improve soil health
- *15 waste storage facilities, and 31 heavy use area protection practices installed to properly store agricultural waste and prevent runoff from farm production areas
- 17 farm conservation easements with 9.3 miles of permanent 50-foot riparian buffers
- 278 acres of riparian forest buffers installed
- 322 acres of wetlands conserved and restored through easements

VERMONT FARMS

Commitment from Vermont Farms

6,800 TOTAL FARMS INCLUDING 541 DAIRY FARMS IN VT

- \$5.2 million estimated farmer investment in agricultural conservation practice implementation
- *726 individual contracts and grants with Vermont farms

**These figures are based on the total federal program investments and corresponding results during the Federal Fiscal Year 2022 (October 1, 2021 to September 30, 2022) and the total state program investments and results from the State Fiscal Year (July 1, 2021 to June 30, 2022). All other results included in this report are based on the State Fiscal Year 2022.*



SATELLITE IMAGERY BEFORE (LEFT) AND AFTER (RIGHT) INSTALLATION OF THE WASTE STORAGE FACILITY AT WOODNOTCH FARM INC.

COLLABORATION FOR WATER QUALITY

Loren Wood, his wife, and their four sons, milk around 1000 cows at Woodnotch Farms Inc. in Orwell, VT. In 2022 Woodnotch Farm Inc. installed a waste storage facility with joint funding from the Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP), and the Vermont Agency of Agriculture, Food and Markets (VAAF) Best Management Practice (BMP) Program. Woodnotch Farms Inc. expanded the size of a waste storage facility to capture and store silage leachate along with any contaminated runoff from the farm's feed storage areas. This project also entailed removal of an antiquated vegetated treatment area that wasn't adequately capturing and treating silage leachate. This site posed a risk to a nearby wetland and Jones Brook. When George Tucker of NRCS assessed the site, he recommended pairing EQIP with the State's BMP program to cover more of the cost than EQIP or BMP could alone. When farmers such as Wood reach out to NRCS about infrastructure projects, "[We are] pretty honest about whether farmers should go for one funding program alone or if it's going to be large and expensive then they can tie the state and the federal programs together," said George Tucker of NRCS.

Conservation on farms is complex and can involve a variety of factors from physical site constraints to funding, to the availability of engineering assistance. In the case of this project, the farm and VAWQP staff worked together to develop creative solutions. The site available was limited in size, and the existing system needed to be decommissioned prior to installation of the new system. Engineers worked to configure the new system to overlap the existing footprint of the old system and designed the storage facility to be as narrow as possible to meet wetland and surface water setback requirements yet still be effective for capturing runoff from adjacent farm activities. This involved coordinating with Wetland Ecologist Zapata Courage at the Vermont Agency of Natural Resources Department of Environmental Conservation (DEC) Wetlands Program. This type of waste collection project "gives the farmers flexibility to deal with their waste when it is convenient for them and also when it is the right time for the field to absorb those nutrients," Bradley said.

This project provided the opportunity to enhance water quality while helping the farm come into compliance with state water quality regulations. "The state is strict with their rules, as they should be, but this is one less thing that our farm will have to worry about," Loren Wood said. "At the end of the day, we are really glad we did this project," Wood concluded.