

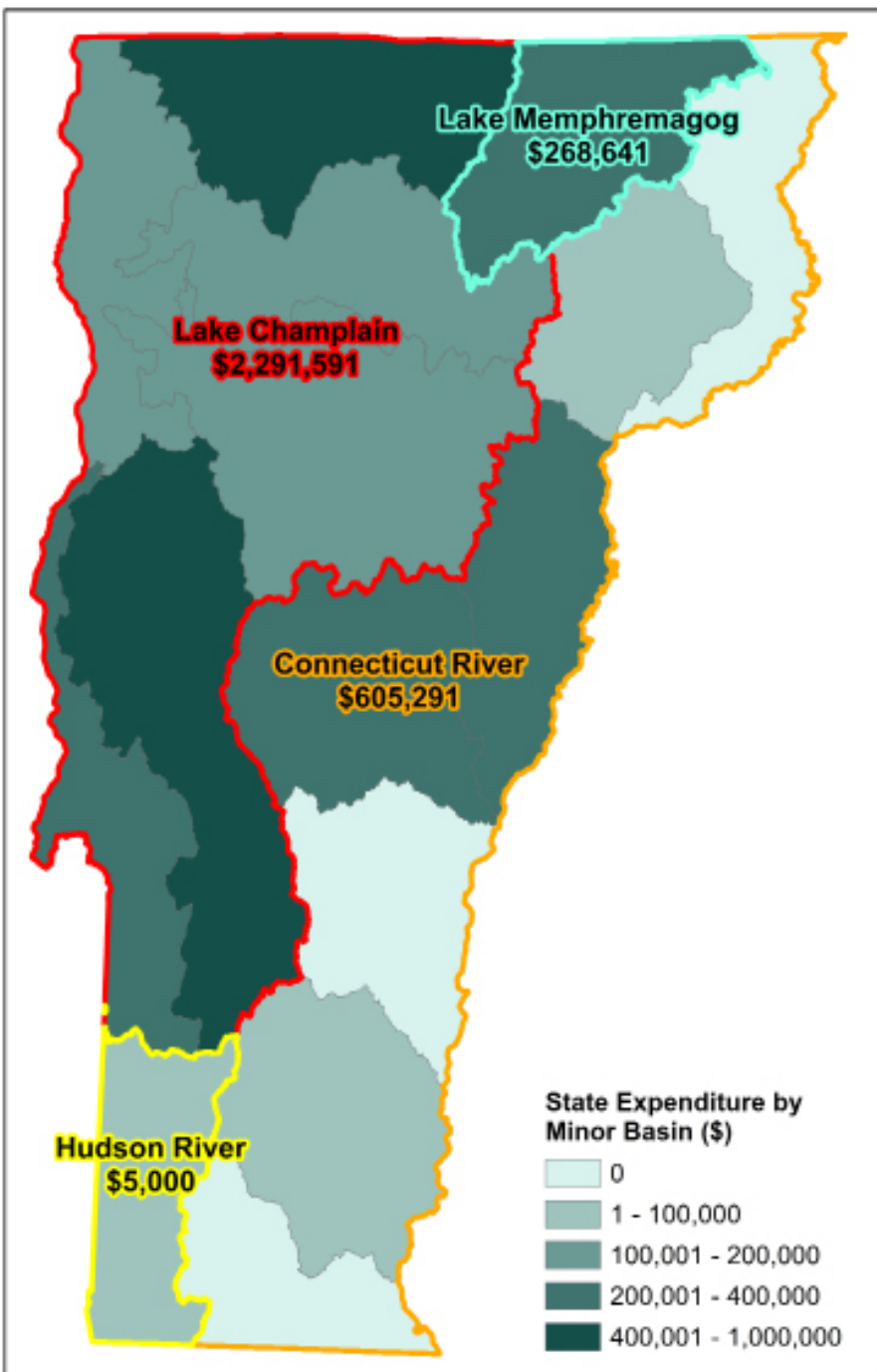
Vermont Agency of Agriculture, Food & Markets Water Quality Division

FY 2018 Financial Assistance for Farmers Summary

The Water Quality Division within the Agency of Agriculture, Food and Markets (VAAFAM) utilizes farmer assistance, education, research, regulations, monitoring, and compliance and enforcement programs that are designed to improve farm management in order to meet the State's goals in improving and protecting water quality.

In FY 2018, the Water Quality Program invested more than \$3.2 million of State funds in on-farm implementation of conservation practices to improve water quality. Vermont farmers invested just under \$1 million in cost-share contributions towards implementation of these projects.

FY18 ON-FARM IMPLEMENTATION BY MAJOR AND MINOR BASIN



7162 ACRES

IMPROVED WITH FARM AGRONOMIC PRACTICES

87 PRACTICES

BEST MANAGEMENT PRACTICES INSTALLED

\$3.2 MILLION

STATE EXPENDITURE FOR ON-FARM

IMPLEMENTATION

NEARLY \$1 MILLION

INVESTED BY VERMONT FARMERS



Before (above) and after (below) installation of heavy use area protection and clean water diversion project on a small farm in Swanton, VT completed through the BMP Program.



Implementation (below) of cover cropping after corn harvest with a No-Till Grain Drill acquired by a group of small farms in Craftsbury, VT, through the CEAP Program.



FINANCIAL ASSISTANCE PROGRAM DESCRIPTIONS

Farm Agronomic Practices FAP:

Financial assistance to Vermont farms for implementation of soil-based agronomic practices that improve soil quality, and reduce erosion.

BEST MANAGEMENT PRACTICES BMP:

Technical and financial assistance program to assist farmers with on-farm improvements designed to abate agricultural waste discharges into state waters.

CONSERVATION RESERVE ENHANCEMENT PROGRAM CREP:

Technical and financial assistance program designed to reduce sediment runoff and improve water quality by removing land from agricultural production and establishing vegetative buffers.

CAPITAL EQUIPMENT ASSISTANCE PROGRAM CEAP:

Financial assistance for new or innovative equipment that will aid in the reduction of surface runoff of agricultural wastes to state waters, improve water quality of state waters, improve manure management, separate phosphorus (P) from manure, and decrease greenhouse gas emissions.

GRASSED WATERWAY AND FILTER STRIP PROGRAM GWFS:

Technical and financial assistance to Vermont farmers for in-field agronomic best practices to address critical source areas, erosion, and surface runoff through establishment of perennially vegetated grassed waterways, filter strips, critical source area seeding, and associated infrastructure.

PASTURE AND SURFACE WATER FENCING PROGRAM PSWF:

Pasture management technical and financial assistance to Vermont farmers to improve water quality and on-farm livestock exclusion from surface waters statewide.



Before (above) and after (below) installation of heavy use area protection and clean water diversion project on a small farm in Georgia, VT through the BMP Program.



SUMMARY OF FY2018 FINANCIAL ASSISTANCE PROGRAMS

PROGRAM	STATE EXPENDITURE	TOTAL OBLIGATION	IMPACT
FAP	\$175,552	\$249,905	7162 Acres Improved
Sample FAP Practices Installed	3796 Acres : Cover Crop		Average 28% reduction in total P ¹
	716 Acres : Conservation Tillage		Average 27.5% reduction in total P ¹
BMP	\$2,516,842	\$2,875,230	87 Practices Installed
Sample BMP Practices Installed	20 Waste Storage Structures		42% reduction in total P ²
	2 Silage Leachate		1 acre of feed storage can lose as much nutrients as 120 acres of cropland ³
	15 Heavy Use Area Protection & 8 Clean Water Diversion		53% reduction in total P for barnyard runoff management ²
CREP	\$48,297	\$48,297	41.57 Acres of Cropland Buffer
Sample CREP Practices	22.1 Acres of Cropland Converted to Riparian Forest Buffer		40% reduction in total P, plus reduction from converting cropland to forest ¹
CEAP	\$469,275	\$902,400	43 Pieces of Equipment/Technology
Sample CEAP Equipment Aquired	6 Conservation Tillage Equipment		Average 27.5% reduction in total P ¹
	2 Silage Management Equipment		1 acre of feed storage can lose as much nutrients as 120 acres of cropland ³
	5 Cover Crop Equipment		Average 28% reduction in total P ¹
	1 Phosphorus Removal Technology		Estimated 86.7% removal by concentration of total P ⁴
GWFS	*New in 2018		
PSWF	*New in 2018		

¹Vermont Agency of Natural Resources, Department of Environmental Conservation - Current Methods to Measure Nutrient Pollutant Reductions

²A tool for estimating best management practice effectiveness for phosphorus pollution control. MW Gitau, WJ Gburek, AR Jarrett - Journal of Soil and Water Conservation, 2005.

³Evaluation of silage leachate and runoff collection systems on three Wisconsin dairy farms. A Wunderlin, E Cooley, B Larson, C Herron, D Frame, A Radatz, K Klingberg, T Radatz, and M Holly - Discovery Farms Wisconsin, 2016.

⁴DVO Phosphorus Recovery System Case Study-Edaleen Dairy. C Frear - Newtrient LLC, 2017.