

VERMONT NATURAL RESOURCES CONSERVATION DISTRICTS



Our Land.
Our Water.
Our Future.



ANNUAL REPORT FY 2017

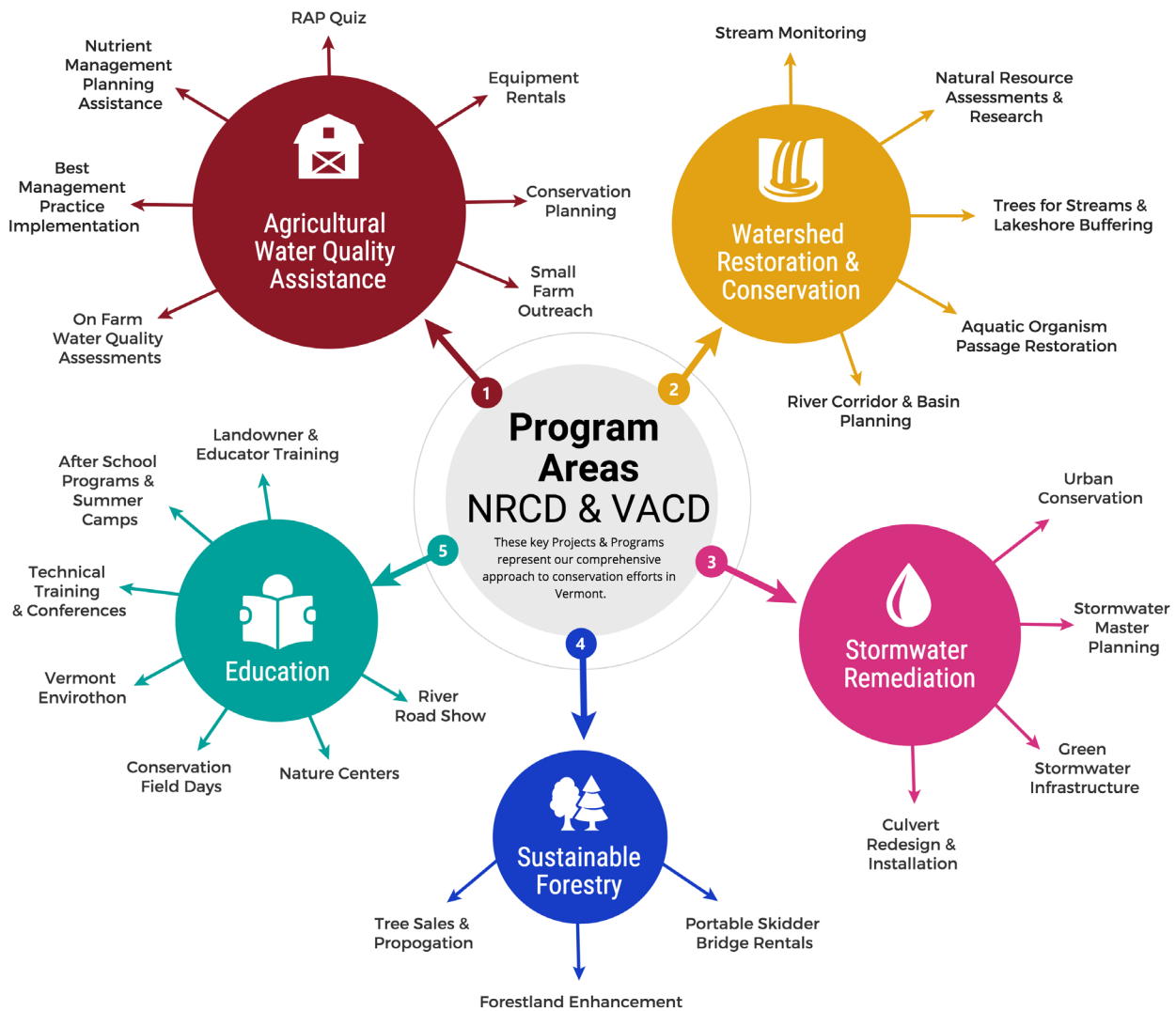
*COVER PHOTO: THE MCCORMICKS CELEBRATE INSTALLATION OF BEST MANAGEMENT PRACTICES
THAT HELPED IMPROVE WATER QUALITY & FARM VIABILITY. SEE DETAILS ON PAGE 5.*

“With support from the Vermont Clean Water Fund, and significant investments by the USDA Natural Resources Conservation Service, Conservation Districts have expanded our work at the local level in recent years. We’re grateful for the opportunity to deepen our impact in our efforts to help landowners and communities enhance soil health and protect water quality and other natural resources for future generations.”

- Jill Arace, VACD Executive Director

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Staff & Supervisors

Each of the 14 Conservation Districts has a District Manager and a five-member Board of Supervisors who must be landowners within the District, with additional technical staff and summer interns. VACD has 30 statewide staff who work cooperatively with Conservation Districts, USDA Natural Resources Conservation Service, the VT Agency of Agriculture, Food and Markets, and the VT Department of Environmental Conservation to implement regional and statewide programming. The VACD board is made up of Supervisors from Conservation Districts around the state. Professional and technical staff include organizational leadership, project managers, conservation planners, technical specialists, cartographic technicians, and program assistants.

Local Work, Statewide Progress

Natural Resources Conservation Districts (NRCs) coordinate financial, technical and educational resources locally for the conservation of soil, water, and other natural resources.

Vermont's 14 Natural Resources Conservation Districts (NRCs) implement projects and programs to address resource concerns, create awareness about conservation initiatives, and generate meaningful local impact. Conservation Districts exist in Vermont State Statute (Title 10: Conservation and Development; Chapter 31 Soil Conservation Act) and have specific duties and responsibilities mandated by law. The Natural Resources Conservation Council (NRCC) manages the Districts' legislative and statutory responsibilities and works as a forum for landowners and Districts to interface with state and federal policy makers. The Vermont Association of Conservation Districts (VACD) oversees regional and statewide programming while providing overall leadership and communications support. Together, NRCs are making critical and coordinated statewide progress toward the goal of improving water quality and conserving Vermont's natural resources.

FY2017 NRCD Accomplishment Highlights

# of Towns Served	68
# of Total Volunteer Hours for All Programs	3,062
# of Trees/Shrubs Sold or Planted	27,966
# of Landowner Partners on Non-Ag Practices	106
# of Land Treatment Plans Completed or In Progress	78
# of Agricultural Acres Assessed by Technical Staff	36,120
# of Nutrient Management Plans Developed	58
# of Stems Planted for Riparian Buffers	11,967



Rutland NRC
Conservation Field Day



Orleans County NRC
Presenting Land Treatment Plan



Essex County NRC
Hydroseeder Program

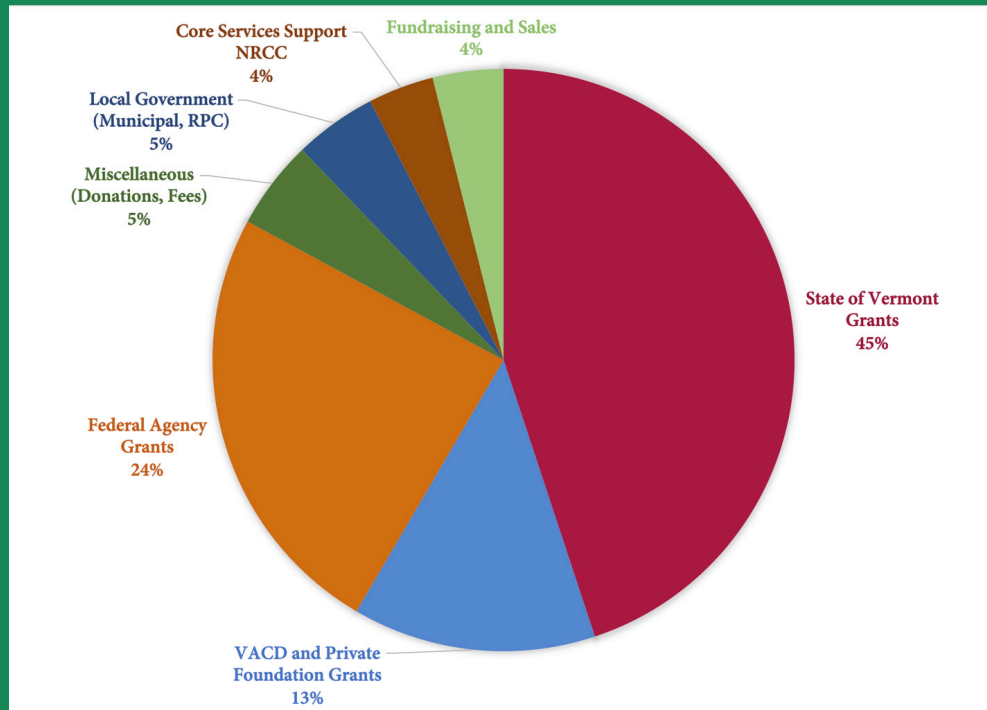


Poultney-Mettowee NRC
Trees for Streams Planting

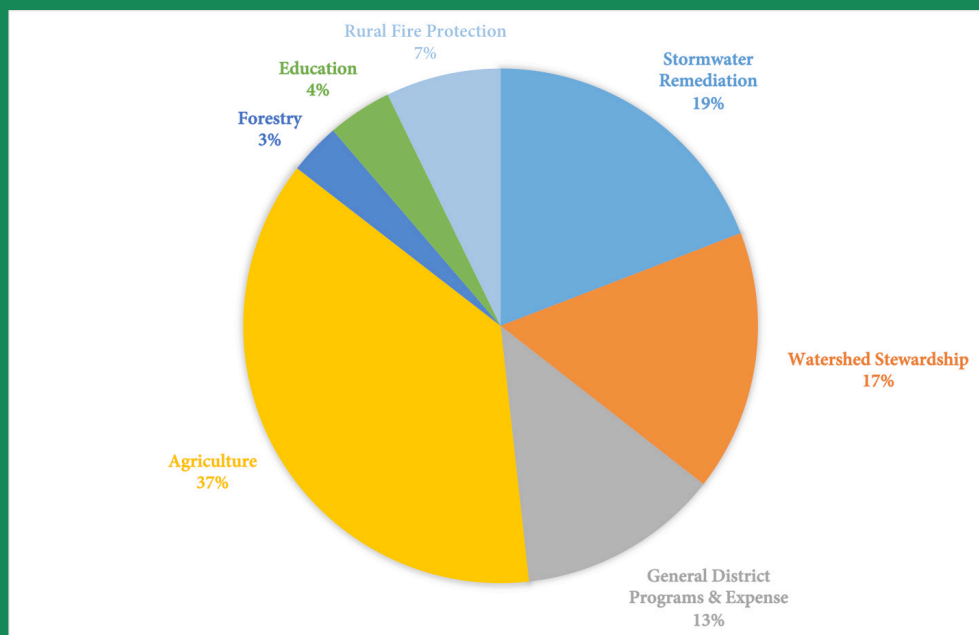
Financial Overview

The following is a summary of Conservation District and VACD income and expense for FY 2017. Conservation Districts and VACD wrote a total of XXX grants during FY 2017 and were awarded \$3,060,440 to support our projects and programs. Currently, Conservation Districts receive \$112,000 allocated by the legislature through the VT Agency of Agriculture Food & Markets to the State Natural Resources Conservation Council (NRCC), which provides just under \$7,000 to each District. To meet their responsibilities and implmenet projects and programs, Conservation Districts and VACD must raise additional funding primarily through grants.

FY2017 Income - total \$3,060,440



FY2017 Program Expenses - total \$2,878,987



Conservation Districts & VACD leveraged \$26 for every \$1 provided by the Vermont Legislature

Conservation Success in Strawberry Acres Tributary!

Orleans County NRCD and Memphremagog Watershed Association highlight local farmers in Newport, VT who reduced their nonpoint source pollution. With help from NRCS, the McCormicks installed best management practices that reduced phosphorous runoff in the Strawberry Acres tributary by 50%!

DISCOVERING THE ISSUE

Lake Memphremagog has been classified as impaired due to elevated levels of phosphorus, a nutrient delivered to the lake through rivers and tributaries. The unnamed tributary called Strawberry Acres flows into the southwest corner of Lake Memphremagog in Newport Town and Coventry, and is one of the many streams shown to be a source of phosphorus. Its watershed encompasses 818 acres of agricultural and residential areas along with extensive forests and wetlands, especially at the headwaters. Elevated levels of phosphorus in Strawberry acres were discovered through the Orleans County Conservation District water quality monitoring program with assistance from the Memphremagog Watershed Association volunteers.

THE PROBLEM

Since 2012, Chad and Amanda McCormick have operated a 55 cow small organic dairy in Newport, VT, located within the Strawberry Acres watershed. When starting to farm, the outdated facility made the day-to-day farm operation challenging. A couple of the inadequate systems included a manure pit that required shoveling manure twice daily and a broken pipe that caused the barn to flood regularly. The herd went out to pasture via a muddy lane with a stream crossing that the cows were reluctant to travel, creating a problem of constantly dirty udders.

THE PROJECT

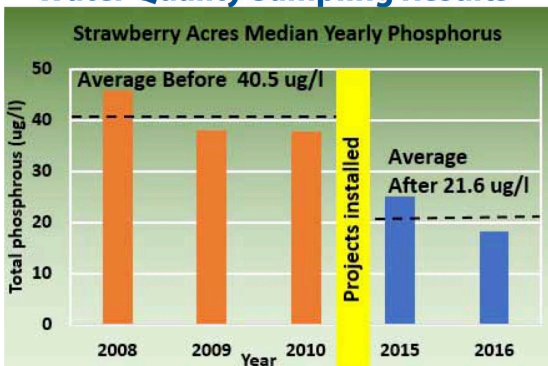
Another local farmer told Chad and Amanda about Natural Resource Conservation Service (NRCS) funding opportunities that assist with farmstead improvement projects that could help make their operation more efficient.

In 2013 – 2014 they worked with NRCS to develop and implement a conservation plan to install a new manure pit along with a concrete barnyard, pasture laneways, and fencing around the stream. Since these projects, the McCormicks have seen

dramatic improvements. Their efforts to minimize runoff into the tributary have yielded many benefits. They are conserving water, recycling the milk house waste to clean the gutters, and capturing all waste in the manure pit. Reduced expenses, improved herd health, increased milk quality, and enhanced cow travel lanes all benefit their farm's overall health.



Water Quality Sampling Results



THE RESULTS

In 2015 and 2016 water quality sampling was repeated at the two sites along the Strawberry Acres tributary to gauge if these projects had measurably improved water quality in this tributary. Total phosphorus concentrations at both sites were substantially lower after these practices had been installed. The McCormicks now have more paddocks and a rational plan, a new laneway, and a new barnyard and pasture watering system, all of which have increased herd health and resulted in improved herd happiness.



Phosphorus runoff reduced by 50% in tributary after installing Best Management Practices!



Agricultural Water Quality Assistance

Conservation Districts provide assistance to farms to balance productive farming and clean waterways. Our services include assisting farms to develop Nutrient Management Plans, providing outreach to farms on the State's Required Agricultural Practices (RAPs), making referrals to connect farms to state and federal resources for financial assistance for Best Management Practices (BMPs), and providing equipment to promote Conservation Tillage practices.



Above, collecting soil samples for Orleans County NRCD.

FY 2017 Accomplishments	
# of Fields Reviewed for Crop Reports & Erosion Potential	8800
# of Acres of Conservation Tillage	2141
# of Linear Feet of Livestock Exclusion Fencing Installed	6360
# of Linear Feet of Buffer Planting on Farms	7600

174 # of farmers that received one-on-one assistance	1,752 # of soil, water, & manure samples collected
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20
 Best Management Practices (BMPs) Installed

RCPP Nutrient Management Planning Assistance

Conservation Districts helped prepare Small Farm Operations in writing their own Nutrient Management Plans through the UVM Extension's winter class "Digging In: A Nutrient Management Class for Farmers". They assisted farmers in taking soil and manure samples, prepared maps, and organized farm records. Farmers who take the class receive follow up visits and guidance every year.

Funded by USDA Regional Conservation Partnership Program (RCPP)

Stormwater Remediation

Conservation Districts help provide assistance to communities to develop Stormwater Master Plans (SWMPs) which identify stormwater or erosion problem areas and opportunities for improvements. Districts then coordinate the design and implementation of stormwater practices such as stormwater treatment retrofits, Green Stormwater Infrastructure (GSI), or erosion control practices, and provide outreach to landowners and municipalities to build awareness of the limitations and traditional grey infrastructure and importance of stormwater attenuation and treatment.



This Bioretention Basin at Giorgetti Park implemented by the Rutland NRCD reduces pollution and nutrient runoff, increases flood resiliency, prevents additional stream bank erosion, & helps protect water quality.

FY 2017 Accomplishments	
# of Stormwater Practices Installed	17
# of Square Feet Hydroseeder Rental Coverage	1500

Education & Outreach

Education and Outreach is a common thread across all sectors of the Conservation Districts' services. Conservation Districts partner closely with State and Federal partners and provide opportunities for the public to learn more about statewide goals, projects, and programming.

- Vermont Envirothon
- After School Programs & Summer Camps
- Technical Training & Conferences
- Land Owner & Educator Training
- Conservation Bus Tours
- River Road Show
- Nature Centers
- Conservation Field Days

FY 2017 Accomplishments	
# of Workshops/Outreach Events Offered	98
# of Participants	3708
# of Presentations at Town Meetings	52
# of Internships, Scholarships, Camperships Offered	30
# of Online Educational Resources Produced	19
# of Printed Educational Resources Produced	17



Left, Richford NOTCH campers gather close to compare the different crayfish they caught in the Missisquoi River in the Franklin County Conservation District.

Watershed Conservation & Restoration

Conservation Districts coordinate a wide range of watershed restoration projects to improve water quality and restore habitat, including buffer plantings on non-agricultural land, culvert replacements to restore fish passage, road erosion mitigation, stream assessments, and basin planning activities.

FY 2017 Accomplishments	
# of Acres of Buffer Planting (non-ag land)	17.55
# of Towns Partnered with on Watershed Projects	27
# of Landowners Partnered with on Watershed or Forestry Projects	106
# of Stems sold at NRCD Nursery or Plant Sales	15,999

39
Acres of Invasive Species
Removed or Treated

34
Restoration Projects
Installed



Left, Essex County NRCD helps a landowner design and install buffer plantings that help to filter runoff before it reaches the lake. These practices play a vital role in helping to improve and protect water quality in rivers, lakes, and streams.

Portable Skidder Bridges



Conservation Districts rent Portable Skidder Bridges to help protect waterways during logging operations.

Aquatic Organism Passage



Poultney-Mettowee NRCD helped replace an undersized culvert with a sixty-foot bridge on the Mettowee River, restoring aquatic organism passage in one of the best trout streams in Vermont.

TREES FOR STREAMS

The Conservation Districts' signature riparian buffer program, Trees for Streams, has been active since 1999 and expanded from a program at the Lamoille County Conservation District to a key statewide District program offered everywhere. The program focuses on installing vegetated buffers along streams to enhance riparian habitat, improve stream health and floodplain function, and protect water quality. To date the program has installed buffers along 9 linear miles of streams.

11,967
Stems planted in FY 2017
for buffer projects & on farms



Above, volunteers planting trees at a farm in the Poultney-Mettowee conservation district.

Rural Fire Protection Program

VACD works with the Vermont Rural Fire Protection Task Force to assist local fire departments and towns in their efforts to improve the safety and welfare of Vermont communities by reducing the risk of injury, loss of life, and damage to property and natural resources in rural areas.

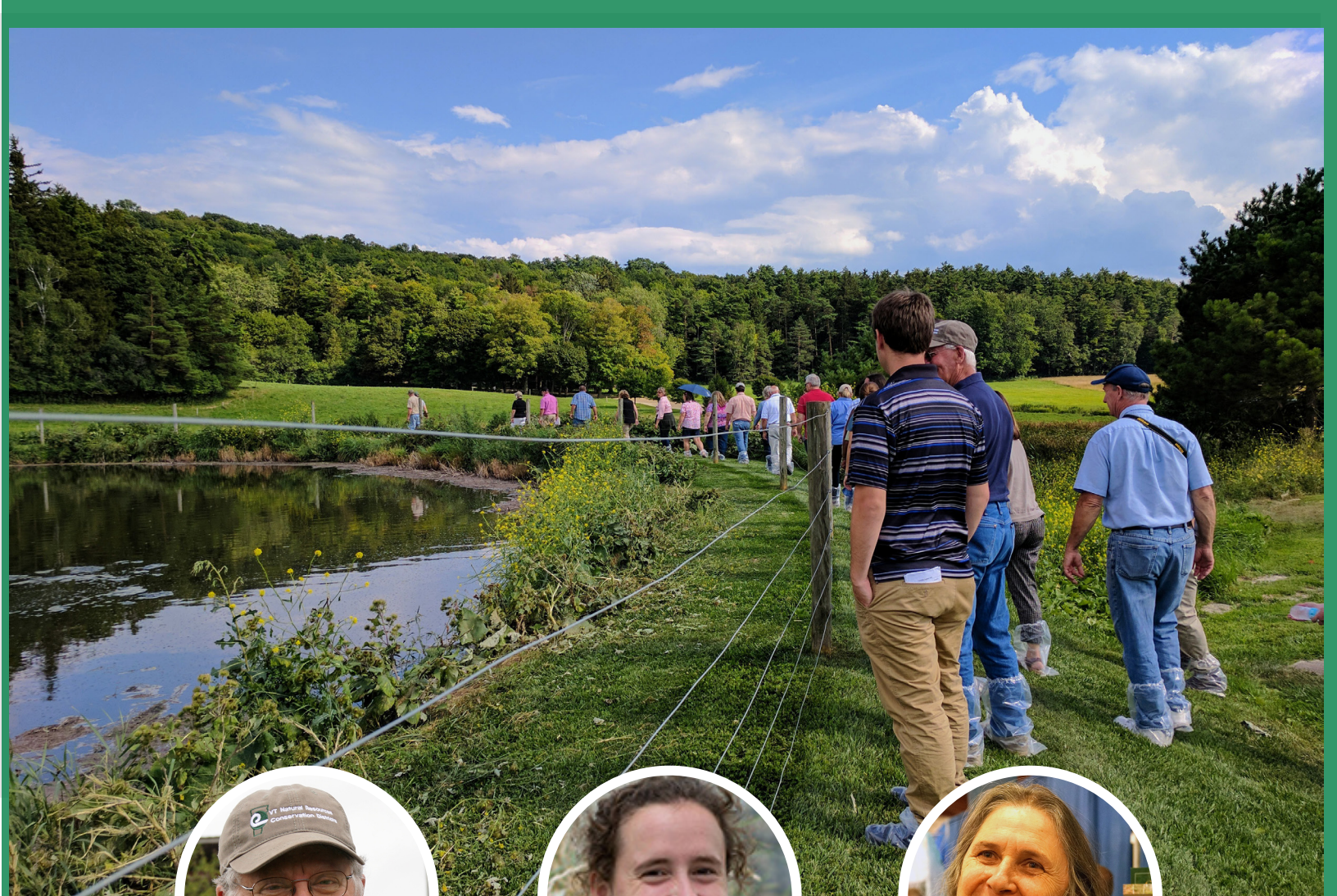
The Rural Fire Protection Program celebrated its 20th anniversary in 2017 with nearly 900 Dry Hydrants installed!



FY 2017 Accomplishments	
# of Dry Hydrants Designed	30
# of Dry Hydrants Installed	20

Right, Rural Fire Protection Program manager Troy Dare with members of the Task Force presenting accomplishments at the VT Statehouse.





www.vacd.org

Thank You Partners & Financial Supporters!

USDA Natural Resources Conservation Service
VT Department of Environmental Conservation
VT Agency of Agriculture, Food & Markets
Lake Champlain Basin Program
VT Department of Public Safety
Vermont Regional Planning Commissions
US Fish & Wildlife Service

New England Grassroots Environmental Fund
Upper Connecticut Mitigation & Enhancement Fund
VT Department of Forests, Parks & Recreation
Green Mountain National Forest
USDA Farm Service Agency
University of Vermont Extension
Municipalities, Businesses, Landowners & Community Members

Vermont Association of Conservation Districts
Jill Arace, Executive Director
P.O. Box 566 Waitsfield, VT 05673-00566
jill.arace@vacd.org - 802-496-5162

State Natural Resources Conservation Council
Kerry O'Brien, Administrator
481 Summer Street, Suite 202, St. Johnsbury, VT 05819
kerry.obrien@vt.nacdnet.net - 802-748-3885



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For media inquiries,
please contact Luke Rackers,
VACD Communications Coordinator,
at luke.rackers@vacd.org