



**Testimony of Rose Paul
Director of Science and Freshwater Programs
The Nature Conservancy in Vermont
Before the House Natural Resources, Fish, and Wildlife Committee**

**VHCB Investments Help Water Quality Outcomes
February 9, 2018**

I'd like to tell you about a conservation project that closed this past year (Dec. 12, 2017), the partnership that made it happen, and how VT Housing and Conservation Board (VHCB) funds leveraged water quality outcomes.

After a death in the family, Ella Armstrong wished to sell her former dairy farm in Calais (Washington County) and she wanted it to remain as farmland and not be developed. This 129-acre farm is a mix of cropland, pastures, wetlands and it includes 4,000 feet of frontage on Pekin Brook which the VT Department of Environmental Conservation has classified as "sensitive to disturbance". The funders to this project were VHCB, the VT Land Trust (VLT), community donations and The Nature Conservancy (TNC.) This partnership secured the permanent conservation of the Armstrong Farm, and it is now owned by a young vegetable farmer who could afford to buy it because of its conserved status.

TNC partnered with VHCB and VLT on this \$205,000 project to help secure some permanent water quality benefits. TNC contributed \$60,000 toward a river corridor easement which applies to 41 acres of the farm, including almost 6 acres of wetland and close to a mile of frontage on Pekin Brook

I'll explain what a river corridor easement is, but the main point is that TNC wouldn't have invested in this project if it wasn't already being conserved, and the lion's share of the funding came from VHCB. VHCB funding served as a catalyst that leveraged our \$60,000.

The river corridor easement is an overlay on the larger farm easement. It requires that the landowner allow a river to move as it needs to, helping the river regain a stable condition over time. You might ask how this relates to the Required Agricultural Practices. The RAPs only protect 25 feet on either side of the watercourse; the river corridor easement is much wider and is tailored to each stream and river. The geographic boundary of a river corridor is determined by the River Scientists at VT DEC; it is the area that the river is expected to move through over time. The river corridor easement prevents dredging, armoring and straightening of a river channel, all activities that contribute to river instability and serious water quality problems.

In the case of the Armstrong Farm, 41 acres are within the river corridor, and of that, 6 acres are wetlands, mostly shrub wetlands, that are now protected from any kind of clearing or alteration. In turn, these wetlands-- I think of them as nature's working lands--filter sediment and pollutants draining off farmland before they reach the stream, and help stabilize the streambanks.

Pekin Brook in Calais flows to the Winooski River which flows to Lake Champlain. I'll remind you that 22% of Lake Champlain's phosphorus comes from unstable rivers and streams, and agricultural lands contribute another 40% of the phosphorus in Lake Champlain. So project by project, we're using the river corridor easement and wetlands protection tools to button up farmland and improve Lake Champlain's water quality. VHCB's funding is leveraging other investments that together achieve multiple goals of land conservation and water quality improvement.

TNC's funding for water quality projects comes from a generous corporate donation from Keurig Green Mountain (now Keurig Dr. Pepper.) Keurig makes a donation to TNC with the intent of helping to improve Lake Champlain's water quality and to replenish groundwater. TNC uses these funds to invest in the protection and restoration of wetlands, shorelines, stream corridors and floodplain forests. These natural assets harness the power of nature to improve water quality. Scientists and economists call this ecosystem services, TNC calls this "nature-based solutions" to the challenge of water pollution. To choose projects, TNC is guided by our Water Quality Blueprint, a map tool we produced to help identify the highest priority projects along streams and rivers.

TNC, through the generosity of Keurig, has invested in 10 water quality projects over the last two years. All but one of these projects was a VHCB conservation project. Together we've protected 184 acres of wetland and over six miles of permanently protected river corridors, with a TNC investment of \$656,000. VHCB funding to conserve the land leveraged TNC's water quality funding to protect and improve the surface waters, shorelines, wetlands and floodplain forests. Without VHCB funding, usually the majority of a land conservation project, TNC wouldn't be investing in the smaller area of frontage along streams and rivers, because we're not going to invest this money in land that might be developed.

The Armstrong Farm project is typical of many of the 10 projects TNC has invested in, providing leverage for VHCB funds, mostly river corridor and wetland protection on farms. A few of the projects have involved restoration, such as the Montagne Farm in Swanton, another partnership with VHCB and VLT. TNC funding for the Montagne Farm, through a donation from Keurig, protected 40 acres of floodplain forest and wetlands on the shores of Lake Champlain. TNC staff also managed a stormwater improvement project on the Montagne Farm, which meant installing structures to trap the sediment from farm drainage ditches before it enters St. Alban's Bay. This stormwater project resulted in the reduction of approximately 88 pounds of phosphorus and 54 tons of sediment per year from these ditches at a cost of \$10,500 for construction of the structures. We wouldn't have invested our staff time and funding in the Montagne Farm if VHCB funds hadn't served as a starting point.

Thank you for inviting me to speak, and I'd like to ask if you have questions for me, or for Cathy Kashanski who is a retired water quality planner and resident of Calais where the Armstrong Farm is located, or for Jon Ramsey, Director of the Farmland Access Program for the Vermont Land Trust who led both the Armstrong Farm and Montagne Farm projects.

Rose Paul
Director of Science and Freshwater Programs
The Nature Conservancy
rpaul@tnc.org; 229-4425 x108

