FNE93-27

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25 Jan 1994

Fred Magdoff, SARE/ACE Program Coordinator Dept. Plant & Animal Science Hills Bldg. University of Vermont Burlington, VT 05405

Dear Dr. Magdoff:

The following report is in regard to project number FNE93-27 funded under the Farmer/Grower Initiated Grant Program.

Our project "A Wetland Demonstration Project for Water Quality Improvement, Wildlife Habitat Creation, and Farmer Education" was completed in mid-November, 1993. I originally expected the project to be be completed much earlier in the year but numerous delays occurred.

The wetland and drainage design work was completed this spring by Neal Parker, Venango County SCS agent, and myself and was submitted for approval to all agencies that were either actively involved or those having regulatory powers. This group included the Soil Conservation Service, United States Fish and Wildlife Service, the Venango County Conservation District, the Pennsylvania Fish and Boat Commission, and the Pennsylvania Department of Environmental Resources.

The paperwork that had to flow through all these agencies required extensive processing time. However, the major delay was due to the review carried out by the Pennsylvania Department of Environmental Resources (PADER). Their review considered whether the project needed a Dam Permit under Section 4 Dam Safety and Encroachments Act 325 and if the project was in accordance with U.S. Army Corps of Engineers' Nationwide Permit (NWP) 27, Wetland and Riparian Restoration Activities. In addition, an Environmental Assessment and 401 Water Quality Certification (WQC) NWP 27 was issued under the authority of Section 404 of the Federal Clean Water Act. The translation here, ironically, is that PADER had to be sure our project was not impacting any existing wetlands. We received notification of approval to begin work on September 23, 1993.

The original cost estimates that Neal Parker and I calculated were relatively close to what would have been necessary for completing the project as designed. Cost sharing that was promised from U.S. Fish and Wildlife was reduced when construction began, therefore all wetlands could not be constructed.

After PADER approval contractors moved on site to begin the projects. The drainage work that was necessary to deliver water to the wetlands was completed September 30, 1993 by Sheldon Trenching. Excavation work was performed by Guiste Excavating and Landscaping and was completed on November 16, 1993. See the Final Financial Report for costs associated with the project. Extensive clean-up and planting will be carried out this spring by Derek and myself.

If you refer to our original project proposal we planned on building three wetlands that would receive water from several drainage networks. The final configuration included four drainage networks and two wetlands (see enclosed figure). Network number one totaled 5,315 feet and drains to the wetland (#1) located on the northeast corner of the farm. Network number 2 totaled 2,315 feet and supplies water to #2 wetland. Drainage network number 3 (2,945 feet) was to supply the third wetland, intermediate in size when compared to the other two, but sufficient funds, as stated previously, were not available for the necessary excavation work. This wetland will be built in 1994 with funds from SCS.

My experience with this project was often very frustrating. This primarily stemmed from dealing with the State and Federal Agencies. I found that their responses to my requests and inquiries were often very slow requiring me to periodically prod them to get things reviewed and/or approved. There also seemed to be little communication among the various agencies. I was particularly irritated when the U.S. Fish and Wildlife Service substantially reduced their cost contribution (to which they previously agreed) after the drainage networks were completed and I had committed to Guiste Excavating for contracting three wetlands for which he scheduled equipment and labor. (It was also apparent that the contractors did not relish working with the agencies either as they requested that I handle all matters involving the agencies.)

In addition, the repeated delays forced me to drastically alter my production plans for this year and for 1994. Because the drainage network would cover a significant portion of several fields I delayed planting as there was no point in having crops destroyed during trenching. Plans for late spring crops were abandoned and replaced with midsummer crops that were never planted either. Continued assurances that approval was imminent resulted in only getting some winter cover crops in place and these were late as well. It is readily apparent that there needs to be a greater, coordinated effort between agencies if this type of project is expected to be utilized by farmers throughout the US.

This situation really surprised me because I am aware of the attention now being devoted to water quality improvement in relation to agriculture. I seriously doubt many other farmers will be as patient as I have been. This project was conceived in 1990 and required a substantial investment in time and effort on my part. Not only did I contribute much to the design but I also spent most of this fall supervising the contractors so the project would be functionally correct because they had no experience in wetland development.

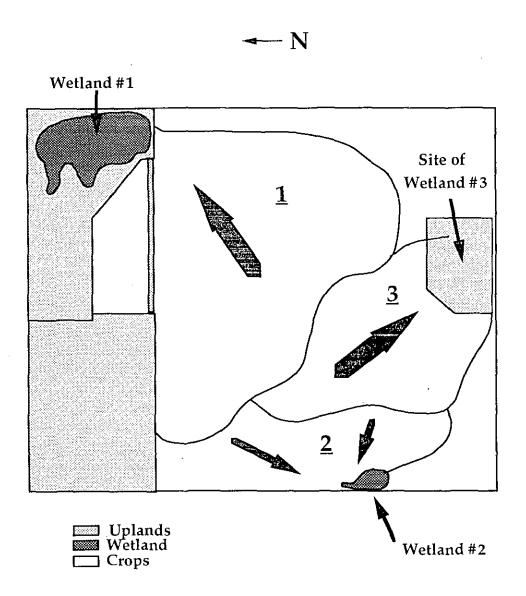
Although the project has had its problems I am convinced that what has been initiated here will be very positive for farmers. I will continue to improve the wetlands with spring seedings to develop adjacent wildlife habitat and interior plantings of aquatic species this summer.

As the wetlands develop vegetationally I feel there value as an educational tool will be realized. I have discussed several outreach programs for next year with SCS and the Pennsylvania Association for Sustainable Agriculture. I also hope to instrument two of the wetlands #1 and #3) to determine their relative efficiency for pollutant removal and transformation.

Enclosed are three slides and the final financial statement for the project. All the slides are from wetland #1 and show 1) the unaltered site, 2) excavation work near completion, and 3) at approximately 75% water capacity. If you would like any additional information regarding the project contact me. I thank you for your interest and financial assistance. Lastly, you and your staff are welcome to visit.

Sincerely

Bruce C. Dickson



1 = Drainage Area Associated with Wetland