



Final Project Report
Guide to our Watershed and Trails
2007-08 Water Resources Education Network (WREN)
Watershed Protection Project
July 13, 2008

Summary Statement

In July 2007, Strawberry Hill and its partners- the Watershed Alliance of Adams County (WAAC), Fairfield Borough, Hamiltonban Township, Borough of Carroll Valley, map designer Bill Metzger, and Gettysburg College- received funding to create and distribute a *Guide to our Watershed and Trails* focusing on the Middle Creek Watershed in Adams County. Educational information in the *Guide* discusses the Middle Creek watershed and its connection to the Chesapeake Bay, the importance of native plants and buffers, and proper use of herbicides/fertilizers. In addition, tips are included on what the typical homeowner can do to decrease non-point source pollution in her/his watershed. The *Guide* will be used as an educational outreach tool for our students, citizens, and visitors throughout south-central Pennsylvania.

Project Goal and Deliverables

Following is a summary of achieved goals according to the original 2007 Scope of Work:

Design, produce and distribute 5000 Watershed Guides about the Middle Creek Watershed using services of a professional graphic designer and basing content on information brought forward through the partnership workshops.

Design:

Strawberry Hill and its partners successfully designed an attractive and educational *Guide to our Watershed and Trail* for the Middle Creek Watershed and Strawberry Hill Nature Preserve and trails. The design process involved three formal meetings with the graphic designer and partners, along with informal meetings with visitors and an extensive email dialogue. The final *Guide* design incorporated educational information regarding homeowners and non-point pollution solutions, an overall map connecting Middle Creek to the Chesapeake Bay, basic guidelines for visitors regarding wildlife, and a trail map for the preserve and streams. In addition, GIS data, contour maps, and pictures from Strawberry Hill were utilized.

Partnerships:

The project produced a successful partnership between government officials, a local watershed group, and a non-profit nature preserve and education center. The partnership discussed several different directions for the project. Primary themes included information about water quality related to herbicides/pesticides; buffers and the connection between trees and water; water conservation; groundwater resources, and drinking water sources and protection. In addition, information directed towards children, a “kid-friendly” panel, was discussed in relation to our capacity as an environmental education center. The partnership decided to focus on issues related to the typical homeowner, rather than focusing on children because Strawberry Hill is developing additional hand-outs for students.

Surveys:

In preparation of developing the text for the *Guide*, general, qualitative surveys were taken of the partners and visitors to the Nature Preserve throughout the fall. The general visitor was aware that Middle Creek was a “clean” stream; most were aware of their impact on waterways regarding pollution; many weren’t fully aware of their water sources or where their drinking originates; many didn’t fully understand the connection trees/buffers and clean water; most knew about groundwater but not how it provides drinking water; and most were aware of our connection to the Chesapeake Bay. In addition, we assumed that most visitors to a nature preserve are more aware of these issues than the general citizen.

On-going meetings were held with the partnership to finalize the content. In addition, as time permitted, staff discussed content and layout with visitors, hikers, and teachers on their visits to the Nature Preserve.

During early spring, draft text was developed and re-circulated to the partnership and staff and volunteers with Strawberry Hill. Care was taken to provide information that would be relevant to a teacher or Watershed Alliance member, but also the first-time visitor.

Budget Update

As of June 30, 2008, all approved LWVPA funds were utilized for this grant project. No unexpected expenses have been incurred. See attached Budget Report and Invoices.

Evaluation

The Guide will increase the capacity for local groups to improve watershed education. Following are examples of how both government officials and private citizens participated in the project and how it will support their educational endeavors.

Involvement of government officials was integral to the success of the project. Significant and pertinent comments and suggestions were received from the government officials involved with the partnership, including township supervisors and borough partners. We were able to address concerns of citizens living in the Middle Creek Watershed and those receiving drinking water from our watershed. For example, Fairfield receives its drinking water from wells located in Hamiltonban Township (where Strawberry Hill is located).

Adams County has one of the highest growth rates in the Commonwealth. Due to the high influx of newcomers to the area, raising awareness of the limited water resources is a high priority for most municipalities. Most of the newcomers are migrating from more urban areas where well and septic system maintenance is not an issue. Many did not have large tracts of land to maintain or the opportunity to have backyard gardens.

Municipal partners are excited to use the *Guide* as outreach to their citizens to raise awareness about what the average resident can do to protect their pristine water resources. In addition, they appreciate Strawberry Hill as a resource to send citizens to experience the unspoiled environment first hand, and to learn more about the watershed.

The Watershed Alliance of Adams County (WAAC) will utilize the *Guide* to raise awareness about Middle Creek, but also general outreach information regarding watersheds. The WAAC is

consistently educating concerned citizens that “All of our Water starts here”. Virtually all of the streams in Adams County flow out of the county. Adams County does not have any large streams that flow through the region to provide significant sources of drinking water. Most drinking water comes from wells with limited groundwater resources. It is a primary objective of the WAAC to educate citizens on where we get our water and the ways to protect the watershed, including water conservation and preservation. The *Guide* will support their efforts and Strawberry Hill will provide an opportunity to learn more about watersheds.

Attendance and participation in the partnership was beyond expectation. We wanted to keep the group at a reasonable size. The core group consisted of six partners. However, we had several people interested in assisting with the project by providing additional input regarding educational text and trail map data. We received comments and suggestions from several user groups such as camp counselors, educators, hikers, and governmental officials. I was extremely pleased with the group’s commitment to increasing awareness of water resources and willingness to get involved.

Project Details and Comments

Utilizing the WREN website and its existing database of publications was extremely useful. I was able to obtain a variety of educational text examples the group could review. From this, we were able to tailor the project to suit our needs. In addition, Eric Eckl’s program and website was beneficial for developing the final version.

No significant problems occurred throughout the duration of the project. Some changes in partner contacts affected the timetable of the grant. However, they were resolved by the winter without any major impacts on the project timeline.

It took some effort to focus the partnership to understand the full scope of work for the project. Many did not understand the *Guide* was to fulfill two tasks- (1) act as an educational tool for visitors and students about watersheds and how they can help protect them and (2) serve as a trail map to explore the Middle Creek Watershed. This made it difficult to focus the group on the goals and satisfy everyone’s requests. In the end, the partnership was extremely pleased with the final *Guide*. In light of this, I would recommend for future projects to be very specific in their goals and expectations.

The development process increased the partner’s awareness of the Middle Creek watershed and therefore, increased their desire to help Strawberry Hill and its mission to connect the community with its natural resources.

I would recommend hiring a graphic designer close to your area. Bill Metzger, our map designer, was wonderful and extremely talented. However, more efficient project management would be possible if the designer is located closer to the project. Mr. Metzger was located 1 ½ hours from Strawberry Hill. This caused some delays near the end. It was difficult to discuss/show edits necessary without being able to meet with him in person.

Continuation of Project and Additional Developments:

The most successful part of this project, along with the production of the dynamic *Guide*, was the spin-off projects. When this project was initially discussed, Strawberry Hill had the opportunity to apply for grant funds for interpretive signage along two of our educational trails. Strawberry Hill received \$9,800 from the Department of Community and Economic Development for this project. Signage will complement information in the *Guide*.

Strawberry Hill and the WAAC received funding for a Coldwater Heritage Grant (\$5,000) to develop a Watershed Plan for the Middle Creek watershed. This project is underway. The group is collecting baseline data along the creek and developing restoration priorities. The *Guide* will serve as a useful outreach tool for citizens living in the watershed.

Additional educational opportunities were created with the government officials. Due to the partnership with Dave Hazlett and the Borough of Carroll Valley, Strawberry Hill has been contracted to do several educational programs for the community. Most recently, our educator was the featured speaker at their annual Fourth of July event which draws over 1,000 people.

Strawberry Hill currently teaches programs to the entire Fairfield Elementary School District. The *Guide* will be used by Fairfield teachers, along with all teachers that participate in Strawberry Hill Environmental Education programs, when they visit the Nature Preserve. The *Guide* will be incorporated as part of their program agenda. Strawberry Hill teaches over 6,000 students per year from all over south-central Pennsylvania and northern Maryland.

Hamiltonban Township has been supportive of Strawberry Hill through many projects. As part of this project, Hamiltonban Township hopes to create additional greenways and access along Middle Creek to promote preservation of the watershed.

Strawberry Hill will continue this partnership in the future, through educational programs with students and residents, and on a larger scale, in development of a Master Site Plan. In December 2007, Strawberry Hill received \$20,000 from the Department of Conservation and Natural Resources to develop a Master Site Plan for our facilities and programs. The partnership developed as part of this project will be directly involved with creation of the Master Site Plan.