By Amy Green

SEEDS OF SUCCESS

Tennessee fairground becomes award-winning LID demonstration project

Every year, rain or shine, for just eight days, 200 acres in Wilson County are transformed into Tennessee's most acclaimed county fair. Last year, 589,229 people enjoyed rides along the midway; entered contests for livestock, cooking and their garden's best produce; and attended live music and entertainment performances. As quickly as the fair assembles, it is gone, beginning an online countdown until it returns the following year, taking with it the masses of people and leaving behind the land to recover.

The property that is now the James E. Ward Agricultural Center and home of the Wilson County fairgrounds began, like much of the property in the area, as a family farm. With visions of a community space to house a fair and other local events, the land was deeded to Wilson County a generation ago. As with many properties that come into public hands, there have been evolving decisions for its current and future use. Including fairgoers, more than one million people visit the complex annually.

One lasting imprint on the land has been the development of Fiddler's Grove, a carefully assembled historic village. While some of the 50 buildings are reproductions, many are relocated and preserved original structures. Fiddler's Grove has become a destination for exploration of Tennessee's historic architecture and folk life as well as a venue for weddings, concerts and other events.

A Plan in Place

In 2003, when Gary Gaskin became storm water manager for a local program in Wilson County, he brought a plan to bring together the townships and the municipal separate storm sewer system (MS4) districts that comprise the county, and share resources to accomplish goals required in MS4 permits. This plan for collaboration would expand the overall ability to complete permit requirements, especially in the area of education.

During that time, the U.S. Environmental Protection Agency began requiring state and local governments to educate the public about ways to reduce or eliminate pollution and mitigate flooding to protect the nation's streams, rivers and lakes from runoff from impervious surfaces that carried pollution and sediment.

Engineers, government officials and storm water managers worked together to create educational opportunities and meet permit requirements.

Gaskin began to assemble a group of engineers, government officials and storm water managers to work together to create educational opportunities for the community at large. There already were increasing concerns that the "natural sponges" of the earth—wetlands—were being drained, streams were being degraded and aquifers were being polluted due to manmade developments, but less obvious pollutants such as oils, garbage and fertilizers also were of concern. Gaskin began to look for ways to join contractors and developers with officials to identify ways to better protect wetlands.

"We were learning together during that time," Gaskin said. "It became increasingly clear that we also needed distributors and companies that manufactured storm water control devices to work with us not as sales people, but to help us all understand what their various products could offer."

While many MS4 districts took actions separately, Gaskin got officials from Wilson County, Lebanon and Mt. Juliet to work together, pooling their resources in a cooperative effort to implement the federal and state requirements and develop a common philosophy and set of guidelines. The result was the Wilson County Water Group (WCW).

One of the first initiatives of the newly formed WCW was to host information seminars and trade show demonstrations targeting contractors, engineers and developers to learn alongside government officials.

It became clear that classroom teaching was important, but seeing the technologies demonstrated on the ground was a vital part of the learning process. The WCW focused on experiential learning and needed a learning lab with year-round accessibility for exploration of the demonstration area by professionals and the public. It also needed to be diverse enough to include an unlimited number of

technologies and have classroom space situated near the demonstration area. Wilson County had just the place: the fairgrounds at James E. Ward Agricultural Center.

Goals & Challenges

The biggest goal was to convince authorities to allow access to and implementation of low impact development (LID) systems. The use of the fairgrounds as the site for the demonstration project meant that a long list of authorities also had to approve the concept and each installation plan. Not only did each of the MS4 directors have to agree, but the individual mayors and city and county officials had to be supportive of using a site located in just one of the cities—Lebanon—within Wilson County. The Tennessee Department of Environment and Conservation (TDEC) had to agree that the MS4s directors, working together to build the demonstration site, could count the project as meeting part of their individual permit requirements for education, despite the project being outside city and even county limits for some of the partners. Beyond these jurisdictional considerations, there also is a governance structure that includes the County Fair Board, the County Agricultural Center Board, a Fiddler's Grove board, the Master Gardeners Group, and the Planning Commissions of Lebanon and Wilson County. Any one group could delay, veto or challenge any part of the project.

And challenge and delay they did. Board members of the various groups and elected officials are not serving in full-time paid positions. These are also entities that under normal circumstances would have no particular need or reason to meet jointly or to collaborate on any project. This meant that, step by step, those working closely on the implementation team were challenged to locate and separately meet with large numbers of stakeholders. Further, when any one person challenged a part of the project, the meeting processes would begin again. While e-mail was utilized, phone conversations and one-on-one meetings ended up becoming the norm.

"In all honesty, anyone could have looked at the various jurisdictional interests and predicted that communications would become our biggest challenge," Gaskin said. "What we did not expect was that it would be hard to spend the grant money on the installations. Basically, we had such enthusiastic participation from vendors that most of the materials and supplies ended up being donated. From porous concrete to pavers, the surface demonstrations ended up being donated. Landscape materials, mulch, trees and plants were donated or sold to us at wholesale rates. Speakers volunteered, and training sites were donated. We found ourselves needing to rearrange line items and we were able to do more with education than we originally thought."

LID Demonstrations

The first demonstration became an LID area of porous concrete that formed the Fiddler's Grove walkway. A rain garden was installed to manage a ponding area.

One of the historic buildings was outfitted with rain barrels to harvest water for gardening and reduce flooding. Another received "armored grass" to alleviate a muddy driveway.

In addition, the project envisioned onsite educational modules that needed to be written and made available. A consulting firm specializing in environmental design, Connected Sustainability LLC, was brought in to develop branding, interpretative signage, a trail guide and a website to support the self-directed tour concept of the demonstration site installations. The firm had to create signage that met all of the technical requirements for ADA and National Parks as well as provided information.

A Healthy Watershed Initiative Grant funded by the Tennessee Valley Authority (TVA) and TDEC and administered by the Nature Conservancy was awarded in December 2012 to Wilson County's WCW. The funds were used to install four different types of pavements (three for vehicles and one for walking paths), a planned swale area, a reclaimed wetland, three rain gardens, a series of rain barrels, two kiosk areas and the planting of enough tree species to qualify the fairgrounds for Level II Arboretum status. All of the demonstration areas are marked by a trail guide, which directs visitors to interpretive signage that explains what they are seeing, why it is noteworthy, areas that would benefit from similar installations and even how to install it.

A Winning Project

Since 2006, thousands of people have attended regular demonstration seminars. The facility has hosted environmental fairs, construction demonstrations, state-sponsored certification classes and the "Think Green, Think Clean" Cleanup and Recycle Fair, with more than 1,000 students picking up more than 10.5 tons of trash in 2012 alone.

New partners have joined with the WCW to add expertise, funds and hard work for expanded demonstrations. These have included area colleges and universities, TDEC, the Agriculture and Wildlife Resource Agency, TVA and the Nature Conservancy. Private partnerships have developed with gardening clubs, nurseries, soil experts, contractors, trade associations, and paving and concrete companies.

Early in the project development, local officials began to take notice. Before it was even finished, the center was nominated for and earned the Greater Nashville Regional Council Stormwater Excellence Award. Gaskin's vision of a destination for homeowners, contractors, vendors and students to see storm water mitigation installations as well as take self-guided tours, gain information over the Web and attend on-ground classes was realized. SWS

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