

**Section II-2**

**Management  
Summary**

## MANAGEMENT SUMMARY

We offer PADEP a unique team of professionals. First and foremost we are a Pennsylvania team that understands the complexities of the Commonwealth's nearly 2,600 municipalities. Cahill Associates has worked for many years throughout the State and understands the wide range of issues which span from the Great Lakes to the tidal Delaware, including a broad array of cultural differences to dramatic changes in physiography and natural systems. We are rooted in Pennsylvania. We are here to stay.

Every two years we work with our friends and colleagues at Villanova University in the planning and implementation of the Pennsylvania Stormwater Symposium, which attracts larger and larger audiences each year. We are committed to making Pennsylvania a leader in stormwater management nationwide, an objective which can and should be advanced measurably by the production of an exciting and successful new Stormwater Management Manual.

What makes the Cahill Team unique? Credibility and experience. We've done it! Although we've written our share of manuals and reports and participated in national level programs, we do more than talk. Cahill Associates has been designing and building innovative stormwater management systems that infiltrate stormwater for over 20 years, using a variety of infiltration techniques such as stone beds paved with permeable pavements. Most of these systems have been built in Pennsylvania; the scope and diversity of projects is impressive (individual project summaries are provided in later sections of this proposal). These projects demonstrate longevity and reliable performance, and constitute the most complete set of stormwater infiltration systems in Pennsylvania and the eastern US. These projects also demonstrate applications in remarkably sensitive settings, such as Exceptional Value watersheds and on steep slopes where others have argued against use of infiltration technologies. For example, the Center for Watershed Protection has recommended against such systems on slopes, without realizing that a series of terraced beds is highly efficient for infiltration. Many CA systems are built on slopes over carbonate bedrock, and have overcome both presumed constraints. These projects demonstrate the use of infiltration systems in some remarkably intense building programs. In fact, the oldest built system, constructed over limestone, has been working for twenty years. The Cahill Team is hands on!

And we have gone beyond infiltration systems, designing vegetative systems that both restore soil and return stormwater to the atmosphere. We have retrofitted existing detention basins, rehabilitated urban sites for stormwater management, and introduced new materials, such as porous concrete, and designs for reuse of stormwater. We have built systems at residential, commercial and industrial sites. Throughout the process, we have worked to share the technologies with others, believing that detention alone cannot manage our water resources.

Seeing is believing. Accomplishing the changes that will be required across the State to implement the new State Stormwater Management Program and Policy is going to be difficult. Change is not easy. It is important that the Manual point to functioning success stories and project examples at every opportunity in order to clearly lead the way and reduce the inevitable reluctance to change.

## Project Team

The Cahill Team and work assignments include:

<b>Cahill Associates</b>	<b>General Manual Preparation and Production, Infiltration Expertise</b>
<b>GeoSyntec</b>	<b>Data Collection and Compilation; Structural BMP Research</b>
<b>LIDC</b>	<b>Nonstructural Approaches Research</b>
<b>ASGECI</b>	<b>Wetland Techniques</b>
<b>Roofscapes</b>	<b>Green Roof Techniques</b>
<b>PEC</b>	<b>Training</b>

The work assignments will be carefully focused and distributed by area of special expertise and experience. Cahill Associates (CA) will serve as the Prime Consultant, with Principal Engineer Michele Adams serving as Project Manager, leading the technical team in a capacity that she has filled many times over the past twenty years. Michele will work closely with Wes Horner, Principal Planner at Cahill, with President Tom Cahill acting as Project Technical Advisor. These three professionals have worked on a variety of projects across the country with great success. The CA staff will also draw upon its extensive experience with infiltration technologies to document that portion of the manual. In addition, CA will formulate the “BMP Worksheets” for design calculations.

Special consultant GeoSyntec will support this effort and provide additional experience in the preparation of stormwater design manuals. Their primary focus will be to access nationwide data sources, given their important ASCE and other national level projects where extensive data collection and compilation relating especially to structural BMPs and their performance has been critical. Special consultant Amy S. Green Environmental Consultants, Inc. provides a wealth of wetland system design experience, and offers a broad knowledge of the vegetative systems applied for stormwater management. Special consultant Charles Miller, President of Roofscapes, is probably the most knowledgeable expert in the US on vegetated roof systems for stormwater management, and will include that knowledge of this emerging technology as an important part of the Manual.

Special consultant Low Impact Development Center (LIDC) brings a rather unique nonstructural approach to stormwater management and will integrate their in-depth knowledge and experience with CA staff. The LIDC is one of the leaders in the nation in this exciting area of stormwater management and design and will blend their special knowledge with Cahill Associates’ Horner who worked as project manager (with Earl Shaver) on the *State of Delaware Conservation Design Manual*.

Finally, the Pennsylvania Environmental Council staff has more experience in communicating new technologies throughout the Commonwealth than any other member of the team, and will take the lead when we move from document production to information and training. Overall, we have the right blend of PA and national experience, with a core group of PA consultants who have worked with the Department on a number of projects over the years.