

## **DRAFT MEETING MINUTES**

**July 27, 2004**

**PADEP Stormwater Manual Oversight Committee  
Rachel Carson Building First Floor Conference Room**

### **I. PADEP Announcements and Inputs**

Ken Murin and Denny Stum chaired the meeting. There were no announcements from DEP.

### **II. Review of Fifth OC Meeting Minutes and Comments Received**

June Meeting Minutes were adopted without comment and/or change. Cahill's Wes Horner indicated that a modest number (7) of comments have been received since the June meeting. These comments were copied and distributed to the OC. Cahill will continue to take comments on Sections 3, 4, and 5, including the additional Section 5 BMP's being distributed at today's meeting. Highest priority will be given to producing rough drafts of the remaining sections of the manual. Revised drafts of all sections, including Sections 1, 2, and 3 will be generated in September and October, prior to production of the Draft Manual in November.

### **III. Treatment of Commercially Available Products**

OC's Warren Cohn presented a powerpoint relating to his work summarizing various stormwater-related products that are available on the market. Warren has grouped many different types of products into 10 groups and has applied the template being used in Section 5 to each one of these 10 groups to define these products. He proposes to include this information in the manual, possibly summarized at the end of Section 4 and 5 in matrix format as well as in an appendix, with sources for additional information. Warren believes that such information could provide more explicit guidance for interested users.

There was extensive discussion on Warren's proposal which extended to the lunch break. Ken Murin reported that PADEP is participating in efforts such as TARP and EPA's ETV wherein new technologies are evaluated with use of rigorous protocols, although Pennsylvania has not as yet established a 3<sup>rd</sup> party evaluation process (NJ is farther along with their NJCAT program). Comments included:

- This list of products would be constantly changing and would need to be updated by someone on an ongoing basis.
- Keep it generic and don't get into specific manufacturers.
- Isn't much of this already being done in Sections 4 and 5?
- Manual could simply reference an updated website.
- Keep it short and restricted to only what has been tested.
- Consult the Drexel testing center for geotextiles.
- Information is useful but the length will overwhelm the manual.
- Should provide 1-2 page summaries with the matrix in order to reduce length and include in manual.
- Develop a standardized testing process for manufactured products.
- The manual needs to establish and support baseline performance requirements.

Comments were varied and didn't produce a clear consensus regarding how this information should be included in the manual. This issue will have to be discussed further with PADEP.

#### **IV. Review of Additional Section 5.0 Structural BMP Elements**

##### **- Infiltration Protocol**

**Tom Cahill**

Tom Cahill gave a powerpoint presentation (to be posted on website) on the draft Guidelines for Infiltration Protocol (hard copy distributed at meeting and posted on website). This protocol will be followed by the Soil Testing Protocol (see below) and will appear in Section 5, after presentation of the array of structural BMP's.

##### **- Soil Testing Protocol**

**Michele Adams**

Michele Adams gave a powerpoint presentation (posted on website) on the draft Soil Testing Protocol (hard copy distributed at meeting; posted on website). This protocol will follow the Guidelines for Infiltration Protocol (see above) and will appear in Section 5, after presentation of the array of structural BMP's.

Although relatively few comments were received relating to the Infiltration protocol, substantial comments were made relating to soil testing:

- We need to make sure that we specify type of soil testing professionals that are necessary to conduct testing.
- Hydraulic conductivity and double ring infiltrometer is more conservative, gives better numbers (usually much lower than perc tests), and aren't that much more expensive. Issue of perc tests providing multi-dimensional flow movement that might reflect reality of small infiltration systems, but not large beds which only vertical movement of water is important.
- Discussed item from Dr. Fritton, soil scientist at Penn State, and various issues such as salinity introduced into soils can be very destructive; determining limiting horizons is critical; this appears to be increasing loading rates tremendously which will be very damaging to the soil and its macropores.
- Low loading rates to accomplish infiltration may encourage sprawl; manual will encourage high loading rates which are unnatural and which will flood basements, turn cultivated fields into wetlands, etc.
- Perhaps testing program should reflect type of BMP being proposed (perc tests ok for dry wells and trenches but infiltrometers better for large beds).
- Perc tests are cheap, easy, and wrong.
- Existing EPA manual says use one-third of tested infiltration rate and PADOT says use one-quarter.
- Perhaps it would be better not to refer to any specific infiltration rate, but leave it up to the reviewing engineer/applicant engineer.
- Manual should establish baseline criteria and allow for alternatives or waivers of certain criteria.

Comments were varied and didn't produce a clear consensus regarding how this soil testing protocol should be modified in the manual. This issue will have to be discussed further with PADEP. Additional comments are invited in writing. Cahill has presented (last week) the soil testing protocol to the PA Association of Soil Scientists and will be receiving comments from this important group as well.

## **V. Review of Additional Section 5.0 Structural BMP's**

Cahill Associates distributed 8 more structural BMP's to be included in Section 5:

- Subsurface Infiltration Beds**
- Infiltration Basins**
- Dry Wells/French Drains**
- Recharge Gardens/RainGardens**
- Vegetated Swales**
- Vegetated Roofs**
- Berms and Retentive Grading**
- Dry Extended Detention**

## **VI. Public Q & A/Closing Comments**

Given the lateness of the hour, additional public comments were few; some comments had been received during the different sections of the meeting from the public. As agreed at the last meeting, the next August 24 meeting will feature a discussion on stormwater management standards. Several parties have requested time to present their positions on this important issue. Denny Stum indicated that because Cahill will be presenting material for Sections 6 and 7 as well, the agenda will be crowded. OC members should be prepared for a lengthy meeting. The meeting concluded shortly after 3 PM.