

**American Society of Civil Engineers  
Environmental Water Resources Institute (EWRI)  
2012 World Environmental & Water Resources Congress  
Albuquerque, New Mexico**

**Stormwater BMP Maintenance Task Committee**

**Meeting Minutes**

May 22, 2012

1. Call to Order 11:10 AM

2. Introductions

A sign in sheet was distributed for signatures. Attendees are listed as follows:

Meeting Attendance

Name	Email Address
Blaine Linkous	<a href="mailto:blinkous@wbcm.com">blinkous@wbcm.com</a>
Kevin Flynn	<a href="mailto:Kflynn@akrf.com">Kflynn@akrf.com</a>
Rick Valte	<a href="mailto:Rick.valte@smgov.net">Rick.valte@smgov.net</a>
Barbara Chongtoua	<a href="mailto:bchongtoua@udfcd.org">bchongtoua@udfcd.org</a>
Jon Page	<a href="mailto:Jlpage3@ncsu.edu">Jlpage3@ncsu.edu</a>
Bill Hunt	<a href="mailto:wfhunt@ncsu.edu">wfhunt@ncsu.edu</a>
Brad Wardynski	<a href="mailto:bjwardyn@ncsu.edu">bjwardyn@ncsu.edu</a>
Jeff Glenn	<a href="mailto:Jeff.glenn@rsandh.com">Jeff.glenn@rsandh.com</a>
Kwabena Osei	<a href="mailto:kosei@hil-tech.com">kosei@hil-tech.com</a>
Michael Kimberlain	<a href="mailto:mkimberlain@kristar.com">mkimberlain@kristar.com</a>
Kaitlin Vacca	<a href="mailto:Kaitlin.vacca@villanova.edu">Kaitlin.vacca@villanova.edu</a>
John Gulliver	<a href="mailto:Gulli003@umn.edu">Gulli003@umn.edu</a>
Cory Jones	<a href="mailto:Cory.jones@urs.com">Cory.jones@urs.com</a>
Savannah Eisen	<a href="mailto:Savannah.eisen@stvinc.com">Savannah.eisen@stvinc.com</a>

Current Task Committee Officers include Blaine Linkous (Chair), Kevin Flynn (Vice-Chair), and Michael Buechter (Secretary).

3. Review of committee mission was presented by Mr. Linkous:

A. Statement of committee purpose:

To further the current state of knowledge pertaining to operation and maintenance of structural stormwater best management practices (BMPs). The BMPs investigated will include: extended detention basins, wet ponds, stormwater wetlands, sand filters, bioretention, vegetated filter strips, and wet/dry swales (See Joint WEF/EWRI Manual of Practice 87, Design of Urban Stormwater Controls). The committee will seek input from engineers, designers, landscape architects, contractors, facility managers, and property owners. Further, the scope of the committee will be to enhance design methodologies to allow for efficient, regular, and effective maintenance and to provide contractors and owners with cost effective techniques to manage their stormwater infrastructure.

B. Statement of committee objectives:

1. Generate a detailed maintenance protocol for each BMP type.
2. Generate region/physiographic province-specific guidance for BMP maintenance.
3. Literature review to determine effects of proper maintenance on BMP efficacy.
4. Case studies reporting on BMP maintenance activities for various classes of asset managers (e.g., commercial, transportation, institutional, military, etc.).

4. Review of committee schedule was presented by Mr. Linkous:

A. Maintenance case studies.

1. **Develop the survey questions. (Complete)**
2. Compile a list of candidates that might be interested in completing the survey, and contact them **(More respondents needed)**
3. Review the responses and develop a short summary report that will lead into the development of the draft maintenance protocol. **(Ongoing)**

B. Draft maintenance protocol **(Ongoing)**

C. Final maintenance protocol due May, 2013.

**D. Draft literature review. (Complete)**

E. Draft regional guidance - due May, 2013.

5. Review of committee progress to date was presented by Mr. Linkous:

Online survey developed in May- December, 2011

Literature review with detailed case studies completed October 2011 – January 2012

Online survey deployed January, 2012

Survey currently ongoing

Lit review, case studies and interim results published in the conference proceedings  
“Operation and Maintenance Assessment for Structural Stormwater BMPs”

6. The committee engaged in a discussion of the ongoing maintenance survey

Mr. Linkous stated a goal of 100 survey responses by the end of 2012, and engaged those present to actively solicit survey responses.

The committee discussed the need for more geographic coverage of survey respondents.

Mr. Linkous described instructions for survey distribution which are as follows:

- a. Provide survey web link to survey respondent
- b. Request committee e-room access
- c. Update survey list
- d. Call and email survey respondent as follow-up

7. The committee engaged in a discussion of the development of maintenance protocols

Mr. Linkous emphasized the need to establish a protocol template that may be applied across all BMP types.

Mr. Hunt suggested the review and potential use of the Auckland Council (NZ) maintenance guidance as a template.

The committee discussed the potential synthesis of available maintenance guidance to develop a protocol template. This will include guidance from Minnesota, Auckland, Philadelphia, and possibly others.

**Brad Wardynski volunteered to take the lead on the development of a bioretention practice maintenance protocol. The development of this protocol will serve as a template for protocols for other BMP types. Mr. Linkous will follow up with other committee members to pair with Brad to complete this task.**

The committee discussed the need to include climate-specific guidance within BMP protocols.

**Cory Jones volunteered to provide protocol guidance related to arid climates.**

Dr. Gulliver suggested the exploration of case studies to show financial impacts of BMP maintenance.

Guidance for BMP troubleshooting was also suggested.

Mr. Linkous and Mr. Flynn suggested a new task committee to address the policy side of BMP maintenance and the relationship between BMP maintenance cost and stormwater utility fees.

8. The committee discussed the need for QA/QC of the final committee report as well as all protocols and other committee products.

**Dr. Gulliver volunteered to assist with QA/QC efforts.**

9. The question was raised if the committee report will be available for free on the task committee website?

**Mr. Linkous is to follow-up on this question with ASCE-EWRI. As of the writing of these minutes, the question has been posed to Kwabena Osei (Chair Stormwater Infrastructure Committee), he stated that he would follow up with the ExCom to resolve this issue. Both he and Mr. Glenn felt that ASCE would likely charge for the committee report.**

10. The question was raised on how the task committee website will be maintained after the task committee has disbanded?

It was suggested that the task committee products may be migrated to the Stormwater Infrastructure Committee website and possibly the to Water, Wastewater and Stormwater Council website.

**As of the writing of these minutes, the question has been posed to Kwabena Osei (Chair Stormwater Infrastructure Committee). He will provide us guidance on this issue.**

11. Mr. Linkous announced the development of an ASCE Webinar with a focus on the task committee's activities and results.

12. Next Meeting Schedule

**Mr. Linkous will schedule a conference call for the week of June 18, 2012.**

13. Adjourn 12:07 PM