

CoC BMP Manual
Meeting 1 Minutes
December 19, 2012, 2pm-4pm
7th Floor Conference Room, 1136 Washington St.

Thank you to those who attended the December 19th meeting and contributed to the first monthly meeting to develop the City's BMP Design Manual. We wanted to provide you with an overview/minutes of the Project's Overview and Goals. Also, we have provided a pdf copy of the presentation, and plan to provide this for the following monthly meetings as well.

Again, to provide some background information, the City's NPDES MS4 permit requires that minimum requirements and guidance be established, and that design and engineering standards be set forth in a Stormwater BMP Design Manual. The BMP Manual is intended to establish minimum technical requirements for compliance with federal and state law, and the Storm Water Management Program (SWMP). This would include the development of design standards, procedures and criteria for conducting hydrologic, hydraulic and pollutant load evaluations, and downstream impact for all components of the storm water management systems. Currently, the City follows the standards set in place by the State and Federal NPDES Sediment and Erosion control guidelines and the SCDHEC Stormwater Management BMP Handbook. Hence, the City wants to develop a BMP Manual tailored to the Columbia area for use in the City.

Goals of the project:

- Want to address any required documents, these will include the NPDES MS4 compliance requirements, City of Columbia's Ordinances, Engineering Regulations, and Planning, Land Development and Zoning Ordinances. These are good documents that should be referenced in the BMP Manual rather than having redundancy or creating the potential to miss any material. It is also the goal of the Manual to make sure these requirements, regulations and codes are all flagged so that no conflicts are created with the Manual's design criteria.
- For construction and post-construction designs, want to promote the use of LID design techniques. Water quantity designs and techniques have been tackled and accomplished, therefore, this Manual will focus on opportunities to improve water quality (while following water quantity criteria). Providing the designer with spelled-out incentives (i.e. Credits) to be more creative with their designs will promote the use of Better Site Planning.
- The BMP Manual should be easy to use. Again, rather than cutting and pasting material from other documents, want accessible links and references to be available. These links and references will be provided by the City of Columbia, rather than direct links due to websites which may change frequently.
- The City of Columbia has a deadline to have this Manual prepared by August, so it is very important to be efficient with the time utilized to develop the Manual. Don't want to reinvent the wheel and start from scratch for a Manual, hence the importance of gathering and utilizing sound references and focusing time on the design aids and crediting tools.
- Lastly, communication from you all will be crucial to developing the Manual. You all will be the ones using this Manual, so your input is necessary.

AMEC's Scope:

- **Baseline Information:** Want to utilize local, State and regional technical resources to provide advanced, technically sound methods and guidance for the City's BMP Manual to adopt. Gathering baseline information will mostly involve DHEC's BMP Manual, Lexington County's Land Development Manual, and the Georgia Stormwater Management Manual (GSMM).
 - DHEC BMP Manual: mainly focus on their Post-Construction Water Quality and LID BMPs. However, CoC BMP Manual wants to provide more design details, i.e. Drainage Areas/Volumes for the functionality of these BMPs.
 - GSMM:
 1. Better Site Design Practices (BSD) – This section of the GSMM covers the toolkit of better site design practices and techniques that can be used to reduce the amount of stormwater runoff and pollutant generated from site. Therefore, this section will be included in the development of the City's BMP Manual.
 2. The Unified Sizing Criteria (USC) – This section of the GSMM explains the four sizing criteria of water quality, channel protection, overbank flood protection, and extreme flood protection, and describes approaches for meeting the criteria through the use of site design practices and structural stormwater controls. Therefore, this section will also be added, including BSD credits that can be used to reduce USC treatment volumes.
 3. Design Aids and Crediting Tools – Want to utilize some of the design aids and crediting tools that GSMM has provided. GSMM's Appendix information of design examples, model ordinances and BMP selection Matrices will be reviewed and narrowed down for CoC's BMP Manual. The existing GSMM Crediting Tool (in Excel) will be provided.
 - Lexington County Land Development Manual (LDM): The new Design Requirements chapter of the Lexington County LDM is an adaptation of the GSMM. Previously reduced/condensed versions of applicable GSMM chapters will be incorporated to provide that information in a more concise manner. Previous versions of new Design Requirements chapter of the Lexington County LDM will also be used, which offer base language and formatting examples for the City to consider, for regional consistency and to reduce efforts.

- **Design Aids:** The BMP manual will evaluate numerous BMPs by explaining where and when to use the BMP, how to install, inspect and maintain the BMP, and whether the BMP is used to meet water quality requirements. To follow this criteria, the following design aids will be provided with Volume calculation sheets, crediting methods, and BMP sizing, details and notes. Expanding on the Lexington LDM, the City wants to focus most of their efforts on developing useful design aids.
 - Water Quality and Channel Protection Requirements – Will develop Excel spreadsheets that include the specific formulas and lookup tables to avoid the use of charts. This will minimize the effort of the user to complete the USC volume calculations
 - Volume Reduction Credits – Will develop a formal process on how to use each one, for the specific goals of the City. Need to address available creditsà user fee credits vs. volume reduction credits.

- BMP Sizing – Will provide a BMP volume sizing worksheet that can be used in the Columbia area. Worksheet refinements will be made to the GSMM examples, including a conversion to Excel for automated calculator. The BMP Manual will include six (6) BMPs. The Manual will also create specific CAD files for the 6 BMPs so that they can be used for construction drawing details and pre-approved notes to improve the process. To narrow down the most useful 6 BMPs to be included, we will need your input.

- **Exclusions:**
 - Buffer Language
 - Supporting ordinance development
 - Floodplain Management & FEMA requirements
 - Language on hydrologic/hydraulic analyses (i.e. typical culvert, inlet/pipe sizing)

- **Document Development:**
 - **First Draft – December**
Will include general content and format, with potential external documents referenced. AMEC will provide the City with the first draft in December

 - **Second Draft – March**
Initial feedback from the City will be addressed, and this document will begin to draft design aids

 - **Final Draft – June**
Document will include final format and refined design aids

 - **Final BMP Manual – August**
Completion of the final manual will have addressed all comments and will be ready for public distribution

- **Meetings and Facilitation:**
 - **Monthly Topics – January – August** will hold technical, 2-hour public meetings that explain the framework to be adopted, benefits, methods for proper use, and explaining how to utilize the BMP manual effectively.
 - **Web Meetings and Conference Calls** – Have the flexibility to arrange conference calls and/or web meetings to discuss topics that may not have been fully vetted during the monthly meetings.

Key Issues:

- **Designer’s Consistency vs. Creativity:** Want to take the review hurdle out of the way for using more creative (greener) designs.
- **City Guidance vs. Designer’s Freedom:**
- **Balancing Design, Function and Maintenance:**
- **Available Credits:** Volume vs. User Fee
- **Public Communication Forum(s):**

Limitations:

- **Water Quality vs. Quantity:** Again, want to focus on providing design and standards for approaching water quality techniques (while following water quantity criteria).
- **How much text?**
 - Provide more links and references instead?
 - Create supporting appendices with additional information?
- **Content and Format:** Want BMP Manual to be simple and efficient
- **Tools provided:**
 - New and existing
 - Supporting guidance on proper use

Questions Addressed:

- *Will conflicts between LID and existing ordinances/regulations be addressed?* Yes, the City's Department of Utilities and Engineering Department will invite other Departments to participate in the process of developing the BMP Manual and try to work through conflicts between LID and existing ordinances/regulations, when possible. In the future, the City will review the BMP Manual once per MS4 Permit cycle, which also will provide a good opportunity to address potential conflicts with existing ordinances/regulations.
- *Will proprietary BMPs be addressed?* The City will not endorse any specific brands of proprietary BMPs. The City understands the benefits of proprietary BMPs, when appropriate design data, removal efficiencies and treatment capacity are provided by the engineer. However, further discussions are needed to finalize the approach to including proprietary BMPs in the BMP Manual.
- *Will design aids be provided with the BMP Manual?* Yes, as discussed above, design aids, mimicking the design aids in DHEC's BMP Manual will be included: Volume calculation sheets, crediting methods, and BMP sizing, details and notes
- *Can the City contact the University of South Carolina to encourage and allow them to use the Unified Sizing Criteria for the design of the upcoming student housing projects?* Yes, the City will do so.
- *Has the City considered the types of development thresholds which may be exempt from the requirements of the Unified Sizing Criteria?* No, it is too early to even project which types of development thresholds, if any, would be exempt.

Again, thank you for your participation. We are finishing-up the minutes from the January monthly meeting (Unified Sizing Criteria and Suite of Structural BMPs) and will get those to you shortly. The next monthly meeting will be held on February 20th to discuss the Better Site Planning/Design & Volume Reduction Credits. The meeting will be held in the same location (7th floor conference room) from 2-4pm.