



**INTERNATIONAL
STORMWATER BMP
DATABASE**
www.bmpdatabase.org

Project Update

Background: The International Stormwater BMP Database project began in 1996 with support from the U.S. Environmental Protection Agency (EPA) and the American Society of Civil Engineers (ASCE). The project's original long-term goal, which remains the central focus of the project, is to gather sufficient technical design and performance information to improve stormwater Best Management Practice (BMP) selection and design so that local stormwater problems can be cost-effectively addressed. EPA initially funded the project through the Urban Water Resources Research Council (UWRRC) of ASCE via multiple grants. In 2004, the project transitioned to a more broadly supported coalition of partners led by the Water Environment Research Foundation (WERF), including the Federal Highway Administration, American Public Works Association, and the Environmental and Water Resources Institute of ASCE.

Selected Project Highlights (2008-2009):

- Integration of Low Impact Development (LID) approaches into the BMP Database:
 - Updated the *Urban Stormwater BMP Monitoring Guidance* (originally issued by EPA in 2002) to include LID (will be final October 2009).
 - Added standardized LID reporting parameters to the BMP Database at the practice level and the site-scale.
 - Developed volume reduction analysis protocols at the practice level and the site-scale.
 - Held expert panel workshop to obtain input on LID-related tasks, including: Bill Hunt, P.E., Ph.D., North Carolina State University; Rob Traver, P.E., Ph.D., Villanova University; Rob Roseen, P.E. Ph.D., University of New Hampshire; Rich Horner, Ph.D., University of Washington; Bob Pitt, P.E., Ph.D., University of Alabama; and Ben Urbonas, P.E., Urban Water Resources Research Institute.
- Significant database growth:
 - Added over 50 new BMP/LID studies and over 30,000 water quality records in 2009 alone.
 - Includes new studies from California Department of Transportation, Delaware Department of Transportation, Urban Drainage and Flood Control District (Denver), Villanova University, North Carolina State, and others. Database protocols are being adopted by regional entities such as Harris County Flood Control District in Houston, TX.
 - Cumulative database includes over 380 BMPs and over 250,000 water quality records.
- Major revision to database structure to enable easier use by diverse audiences, including changes to simplify pairing of storm-based data and use of EPA's "WQX" nomenclature for water quality parameters.
- Development of new performance summary protocols to enable characterization of broader BMP types, with increased focus on hydrologic performance and revision of approach for manufactured devices.
- Outreach to broad community through publication of articles in periodicals and presentations at conferences. An example application includes analysis of bacteria data in the database to support efforts related to pathogen TMDLs. Also supported EPA/Tetra Tech in development of EPA's Urban BMP Performance Tool.

Project Needs: Ongoing funding by a broad coalition to enable continued growth of database, evaluation of BMP/LID performance and ongoing dissemination of findings. Given new federal, state and local requirements related to volume reduction, sustainability and TMDLs, a scientifically based understanding of BMP performance remains fundamental to effective stormwater management and regulation.

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