



UNIVERSITY OF NEW HAMPSHIRE STORMWATER CENTER

Dedicated to the protection of water resources through effective stormwater management.



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The UNH Stormwater Center studies stormwater-related water quality and quantity issues. A unique facet of the program is the field facilities that are used to evaluate the performance of stormwater management technologies. Over 20 different management systems have been or are currently undergoing side-by-side comparison testing under strictly controlled conditions. The close proximity of the field testing facility to UNH enables the Center to offer technology demonstrations and workshops, as well as specialized training opportunities.

Under the Clean Water Act Phase II rules, the Environmental Protection Agency requires local governments to develop stormwater programs. In response, many organizations have or are now developing plans and actions to achieve desirable water quality and storm volume reduction. Although many of the stormwater management strategies are based on sound theory, there is no requirement that they undergo independent, third-party scientific testing. A three-year study of nine seacoast sites in New Hampshire clearly showed that traditional stormwater technologies failed in reducing at least one water quality parameter two-thirds of the time.

MISSION

The UNH Stormwater Center is dedicated to the protection of water resources through effective stormwater management. The primary functions of the center are twofold: (i) Research and development of stormwater treatment systems, (ii) To provide resources to the stormwater management community currently facing the design and implementation of Phase II requirements.

OUTREACH, EDUCATION & PARTNERING

Outreach efforts include routine Stormwater Technology Demonstration Workshops and hosting annual meetings for professional associations, government agencies, and others. Educational activities include publication of a Biannual Data Report on stormwater system performances, presentations at regional and national venues, website resources, an Innovative Stormwater Management Database for the region, and publications in refereed journals. The Stormwater Center partners with a variety of public and private participants. Our Technical Advisory Board provides advice and expertise, and includes academics, state and federal regulators, local government officials, and industry representatives.

FIELD FACILITY & STORMWATER CONTROL TECHNOLOGIES

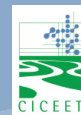
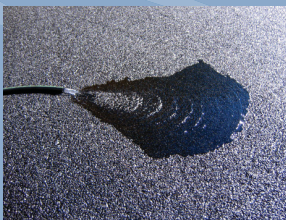
The Center is comprised of various sites on the UNH Durham campus: the Primary Field Facility, a pervious concrete parking lot, and a porous asphalt parking lot. Future testing sites include a green roof and pervious pavers. Stormwater controls that have been or are currently being tested include: 6 Conventional BMPs (a stone-lined swale, vegetated swale, filter berm swale, retention pond, a detention basin, and a deep sump catch basin), 8 Low Impact Development Devices (a surface sand filter, 3 bioretention systems, a subsurface gravel wetland, a street tree, porous asphalt, and pervious concrete), and 11 Manufactured Devices (5 Hydrodynamic separators (AquaSwirl, VortSentry, V2B1, CDS, Downstream Defender), 4 filter systems (AquaFilter, AquaFilter Pathex, Stormtech Isolator Row, UpFlo Filter), 1 large volume infiltration device (ADS subsurface infiltration/filtration system), 1 sedimentation device (ADS Water Quality Unit)).

PROJECT TIMELINE

Full site operation began in August 2004. Low Impact Development Technologies are continuously studied to understand maintenance concerns. Interested vendors should submit a letter indicating Request for Proposal for Product Testing. Testing rounds begin in September with installations in the preceding summer. Letters for RFP or for more information regarding product testing contact the Center Director.

FUNDING

Basic, continuing funding is provided by the Cooperative Institute for Coastal and Estuarine Environmental Technology and the National Oceanic and Atmospheric Administration. Other specific funding has been provided by the United States Environmental Protection Agency, the Maine Department of Transportation, the New Hampshire Estuaries Project, New Hampshire Sea Grant, the Rhode Island Department of Environmental Management, and industry associations (Northern New England Concrete Promotion Association, North East Cement Shippers Association). Funding has also been provided for testing from manufacturers of the various systems tested.



Please visit our website, www.unh.edu/erg/cstev