The UNH Stormwater Center




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The UNH Stormwater Center studies stormwater-related water quality and quantity issues. One unique feature is the field facility to evaluate and verify the performance of stormwater management devices and technologies. Fifteen different management systems are currently undergoing side-by-side comparison testing under strictly controlled conditions.

This on-campus evaluation facility enables the Center to offer technology demonstrations and workshops, and also specialized training opportunities. In addition to the primary field facility, the Center has other sites available to study approaches that need more space or present unique conditions.

Under new 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 devices are based on sound theory, there is no requirement that they undergo independent, third-party scientific testing. Perhaps as a result, a three-year study of nine seacoast sites in New Hampshire showed that traditional stormwater technologies failed in reducing at least one water quality parameter two-thirds of the time.

Mission

- Test stormwater control measures
- Disseminate test results and evaluations
- Demonstrate innovative stormwater management technologies

Partnering

The Stormwater Center involves a range of participants. Our Technical Advisory Board provides advice and expertise, and includes industry representatives, state and federal regulators, academics, and local government officials.

Vendors, manufacturers, regulatory agencies, system designers, and the thousands of entities required to comply with the Clean Water Act benefit from Stormwater Center research. All are encouraged to comment on the facility and testing methods.

Field Facility & Stormwater Control Technologies

The primary field facility is located at two sites on the UNH Durham campus.

Stormwater controls currently being tested include: subsurface treatment wetlands, infiltration devices, filtration devices, detention ponds, manufactured devices, a tree box, inlet inserts, and a porous asphalt pavement parking lot. The contributing drainage area is almost completely impervious and generates stormwater flows typical of many developed urban and suburban subcatchments.

Planning is underway for site research of non-structural Best Management Practices, such as street vacuuming.

Project Timeline and Outreach

Full site operation began in August 2004. Information is communicated several ways, including technology demonstrations, short courses, an engaging and regularly updated website, publication in refereed journals, and presentations at regional and national forums.

Funding

Funding is provided by the Cooperative Institute for Coastal and Estuarine Environmental Technology and the National Oceanic and Atmospheric Administration. The Stormwater Center is part of the Environmental Research Group at the University of New Hampshire in Durham.

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