

At UNH, Even The Parking Lots Are Green

New Pervious Concrete Surface Aims To Treat Polluted Stormwater

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Editors and reporters: Construction and concrete placing on the lot begins Tuesday, Aug. 7. Members of the media are invited to the site the morning of Wednesday, Aug. 8, for photos and interviews with the researchers and project directors. To confirm your attendance, contact Dolores Leonard: 603-862-3685, or <u>dolores.leonard@unh.edu</u>.

Durham, N.H. – Next week, the University of New Hampshire will install the first major pervious concrete parking facility in New England. The installation, which will replace the surface of a parking lot by Williamson Hall, will be overseen by researchers from the UNH Stormwater Center, who plan to study its effectiveness as a stormwater management tool.

"Pervious concrete lets stormwater drain through the parking lot, so it can be filtered and scrubbed of pollutants, rather than letting it pool on the surface, or be collected in detention ponds," says Robert Roseen, director of the UNH Stormwater Center. "It's an effective, cost-saving solution to stormwater pollution, but no one's been sure it can work in our cold New England climate."

Nonpoint source pollution carried by stormwater is one of the greatest threats to water quality nationwide. The concept of using pervious concrete to capture and treat polluted runoff is not a new one, but it has met resistance in New England due to concern over its performance during the freeze and thaw of the region's winters. With this parking lot, researchers aim to demonstrate that pervious concrete can work in cold climates. At the same time, they want to provide communities with a new way to tackle the problem of containing and treating polluted stormwater runoff by capturing it on-site and treating it naturally.

The research team, led by the UNH Stormwater Center, will look at the pervious concrete's performance with regard to treating water quality, reducing the volume of runoff, and minimizing the need for salting and sanding in winter. They also will track how well it stands up to wear and tear.

"Parking lots made from impervious pavement typically last 12 to 15 years, while pervious pavement lots can last more than 30 years," says Roseen. "The reconstruction of this lot is more costly than repaying, but over the long term, UNH will see a return on this investment.

UNH Transportation Services understood this from the beginning, and their commitment has been key to making this technology demonstration happen."

The UNH Stormwater Center is also working with the Northern New England Concrete Promotion Association, the Northeast Cement Shippers Association, and PCI Systems, which will contribute materials and installation costs. "We're pleased to play a part in this important project," said Jonathan Kuell, executive director of the Northern New England Concrete Promotion Association. "We're hopeful that this research will show municipal officials, engineers and local policymakers that pervious concrete can help manage stormwater and protect water quality."

As communities, particularly coastal ones, prepare to meet Phase II of the U.S. Environmental Protection Agency's Clean Water Act next year, pervious concrete could shape up to be an important tool for improving stormwater management practices that impair water quality and contribute to flooding across the coastal U.S.

Construction will take place from Tuesday, Aug. 7, through Thursday, Aug. 9, and runs from approximately 8:00 a.m. through 2:30 p.m. The lot is adjacent to Williamson Hall, off Williamson Drive on the campus of UNH (Mill Road to McDaniel Drive; Williamson Dr. is off McDaniel).

The UNH Stormwater Center (<u>www.unh.edu/erg/cstev/</u>) is dedicated to the protection of water resources through effective stormwater management. The Center operates a first-in-the-nation field research facility, where scientists test the performance of different stormwater treatment systems and offer workshops for stormwater managers in New England and beyond. More than twenty treatment systems have been examined in a side-by-side comparison, under strictly controlled conditions.

Primary funding and support for the UNH Stormwater Center is provided by the Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET), a partnership of UNH and the National Oceanic and Atmospheric Administration (NOAA). CICEET develops tools for clean water and healthy coasts nationwide. The center is part of the Environmental Research Group at UNH.

