

PRESS RELEASE

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Merrimack, NH

Pennichuck Square to Demonstrate Green Techniques

Pennichuck Water Works, supplier of drinking water to Nashua and some surrounding communities, has been dealing with the problem of pollution caused by urbanization of the 17,000+ acre watershed of Pennichuck Brook, part of the water supply source, for many years. Pennichuck, sometimes with other grants from NH DES, has completed many education, evaluation and construction projects in the 5-town watershed since the 1998 publication of a Watershed Protection Plan. The latest project is located at Pennichuck Square in Merrimack and will begin construction in mid-June this year. The project is a demonstration of innovative drainage improvements that will result in over 88% of the site's runoff being treated to remove pollutants that now enter Pennichuck Brook directly from the pavement, something that happens throughout the watershed at commercial and other parking lots.

The project results from a state grant awarded to Pennichuck based on an application submitted jointly by Pennichuck and the Merrimack Planning Board. Funding is from Pennichuck Water Works and NH Department of Environmental Services (NH DES). The project features a Low Impact Development (LID) approach, something that is catching on all over the U.S. in recent years. LID is an approach to development and redevelopment that considers the natural hydrology or water flow of any site, with the goal of replicating the site's original water balance as much as possible.

Pennichuck Square's landowner, Renwood Companies and Pennichuck Square Limited Partnership, represented by Ian Wood, is excited about the prospect of fixing some long-standing drainage issues at this site that borders the Pennichuck Brook, and particularly at doing it with innovative methods that will provide much greater protection of the brook from stormwater pollution. "We see this as a win-win for everyone involved. We get some of our drainage issues updated and have the opportunity to help improve the environment. Our tenants get an even more attractive site and may get some extra traffic from people coming to look at the improvements. Pennichuck gets improved water quality, NH DES and Merrimack get a demonstration project that will help local developers understand and use the new techniques."

The techniques are designed to reduce flooding, prevent water pollution and recharge groundwater, all while being attractive and cost competitive with standard engineering techniques. They include new techniques such as biofilters, pocket raingardens and infiltration dividers in the parking lot that will trap rainwater runoff and infiltrate it for natural treatment through the soil and other biological filters built at the site. It will also include old but underused techniques like leaching catch basins and level spreaders.

Urban development of the 17,000+ acre watershed has resulted in hundreds of acres of imperviousness, mostly in the form of roads and parking lots that prevent the natural infiltration of rainwater. Without development, this infiltrated water is cleansed and slowly released to surface waters like Pennichuck Brook and pumped by wells for public and private water supply. With development, rainwater runs rapidly off the impervious asphalt, rooftops and other hard surfaces. This increases flood levels and frequency and pollutes ponds, lakes and waterways because the natural cleansing provided by slow infiltration is lost. This type of pollution (stormwater) has been identified by the U.S. EPA as the No. 1 threat to water quality in the U.S.

It is also a threat to public and private wells and may result in extensive property damage through flooding.

According to design engineers at Comprehensive Environmental Inc. of Merrimack, this demonstration project will reduce the total stormwater runoff and its' associated pollutants from the Pennichuck Square site by an astounding 88%, instead treating and recharging water to undergo Mother Nature's natural cleansing. Widespread use of these techniques in the future may help reduce flooding and improve water quality in lakes, ponds and rivers.

The Pennichuck Square site will provide a model for commercial landowners, developers, engineers, contractors and other town officials to view and assess and adapt for other sites. Pennichuck, NH DES and the Merrimack Planning Board hope that some of them will follow Renwood Company's lead into greener development practices. Construction will begin in the mid June and last a few weeks. It is expected to be completed by early fall of this year. Fact sheets will be available at Pennichuck Square, located in each store and more details will be available on Pennichuck's website at www.pennichuck.com. For more information, contact Donald Ware at Pennichuck Water Works at 913-2330 or Eileen Pannetier at Comprehensive Environmental Inc., 603-424-8444 X301.