13 November 2007

Mr. T.J. Mullen
Best Management Products, Inc.
53 Mount Archer Road
Lyme, Connecticut 06371

Dear Mr. Mullen:

As part of the 2002 – 2003 watershed project for Lake Peekskill, SNOUT stormwater retrofits were installed in the Town of Putnam Valley. These retrofits were chosen since large, structural Best Management Practices (BMPs) would be difficult to install these residential areas. On 9 May 2003, the Putnam Valley Department of Public Works installed two SNOUT devices into two previously identified catch basins. The SNOUTs were monitored four times during 2003; 18 September, 25 September, 12 December, and 29 December. Stormwater samples were collected entering and exiting the SNOUT retrofitted catch basins and were analyzed for total phosphorus (TP) and total suspended solids (TSS). In order to estimate the pollutant loads entering and exiting the devices, rainfall data (Northeast Regional Climate Center: http://climod.nrcc.cornell.edu/), measured pollutant concentrations, and the immediate drainage area were used. Specifically, the following equation was used to estimate the pollutant load entering and exiting the SNOUT devices:

$$L = R * A * C$$

Where L = Pollutant load (lbs)
R = Rainfall during sampling event (meters)
A = Drainage area (m^2)
C = pollutant concentration (mg/ L)

It should be noted that rainfall data during the 29 December 2003 sampling event was not available through the Cornell Climod database; thus, Princeton Hydro estimated the amount of rainfall to be 0.1 inches. In addition, the area of land draining into the SNOUT devices were estimated to be 880 m^2, using ArcGIS and the limited existing topographic data. The SNOUT devices removed both TSS and TP from stormwater entering the SNOUT devices from the surrounding drainage area. On average the SNOUTs reduced TSS by 56% and TP by 46%. Please refer to the figures at the end of this document for additional removal data. Please note that these are rough estimates since the exact drainage area and amount of rainfall were approximated.

Based on these data, the SNOUT-modified catch basins demonstrated the potential to remove the TSS and TP pollutant loads originating from surface runoff. If you have any questions or comments, please contact us at (610) 524 – 4220.

Sincerely,

Mary Lambert
GIS Specialist/ Scientist

SNOUT TSS Removal

SNOUT TP Removal