

Monitoring Results: Stream Restoration in the Red Hill Branch Watershed

HOWARD COUNTY, MARYLAND

PROBLEM




Eroding stream banks in an urban area were allowing excess nutrients and sediment to reach the Chesapeake Bay.

SOLUTION

The stream was restored in 2011 by stabilizing and re-vegetating 3,165 linear feet of stream banks for \$1,048,000 thereby reducing excess nutrients and sediment. Added benefits included improved stream habitat, protected property and infrastructure.

RESULTS*

Stabilized stream banks are reducing excess nutrients and sediment reaching the Chesapeake Bay.

	Erosion Reduction (Average Annual % Decrease)	Erosion Reduction (Annual lbs)	Cost per Pound (**Based on an estimated 15yr project life)
Suspended Sediments	78% ↓	 or 240,063 lbs	\$0.29
Phosphorus	95% ↓	 or 657 lbs	\$106
Nitrogen	97% ↓	 or 658 lbs	\$106

BEFORE RESTORATION IN 2011



AFTER RESTORATION



Chesapeake and Atlantic Coastal Bays Trust Fund - Focused funding, measureable results, and maximum restoration benefits

*Hill, C. R. and M.J. Pieper. 2017. Brampton Hills Stream Restoration Post-Construction Monitoring: Priority Pollutant Load Reductions. Howard County Department of Public Works, Bureau of Environmental Services, Stormwater Management Division, Columbia, Maryland
 **Project must be inspected for credit renewal every 5 years