

## **Rain Storms Over Reston Bring Financial Storms**

By William Nicoson

“Still glides the Stream; and shall forever glide;”  
– Wordsworth, “The River Duddon”

Still-gliding streams in and around Reston, whatever poets say, do not forever glide. In fact as Reston has grown, the streams in our watershed increasingly alternate between roaring torrents and less roaring torrents. The roaring of the stream answers thunder in the skies. Storm water run-off has at last been recognized by community builders and managers as a pervasive and costly challenge to the built environment.

In nature when rain falls to earth, it usually sinks rapidly beneath the porous surface and replenishes the water table or finds its ways into rivulets or streams from which later infiltration of the soil occurs. When the hard, impervious surfaces of roofs, parking lots and streets invade nature, what's a poor raindrop to do? It runs off, of course, into hard-surface drains which convey it, usually at highly inflated velocity, to a local stream or tributary.

When the poet's gliding stream becomes a roaring torrent, its engulfed banks are carried away with the flow. Vegetation nurtured by stream banks, from wild flowers to mammoth oaks, are lost. And downstream deposits of sediment may create flash flooding, impede navigation of waterways or endanger recreation through lake siltation and alteration of water culture.

Reston Association maintains 4 lakes on 125 acres, all of which were once fed by gliding streams that now become roaring torrents during any passing rain storm. Lake siltation has accelerated as impervious surfaces have multiplied in the community development process. Ironically, Reston's lakes, designed as scenic and recreational amenities, now serve in addition as giant detention ponds in an evolving system of storm water management. The management principle is to hold in porous ponds and depressions a substantial portion of run-off, permitting percolation of the soil to occur over time. The withheld run-off eases the magnitude and velocity of stream flow fed by storm water, thus reducing erosion and its adverse consequences.

So Reston's lakes help protect landowners downstream, mostly outside Reston, and RA picks up the tab for dredging the silt. Sure, of course, dredging is necessary anyway to assure recreational safety for Restonians. While silting conditions vary from lake to lake, the standard interval between one dredging and the next has been seven years at an estimated cost currently of \$220,000. RA is studying what portion of that cost can be eliminated by rehabilitation of water channels upstream.

The RA Board of Directors will review in the next few months a proposal for rehabilitation of the Snakeden Branch from Reston Parkway to Lake Thoreau, the most acute source of siltation for any of the Reston lakes. This project will no doubt be the first in what will become a

permanent RA program of erosion containment in Reston's water channels. Storm water management is a relatively new environmental science which is gaining wide attention from local governments, together with some dismay. The cost can be anywhere from \$10 to \$200 per linear foot of channel. In this first project, RA is studying 1.9 miles of primary channel.

Fairfax County has established a Storm Water Utility Advisory Group to study possible programs for storm water management. For some reason its report is unlikely to be considered by the Board of Supervisors before the November elections. There may be some hope that, among its recommendations, will be compensation to RA for tackling this issue before the November elections.

*William Nicoson is a former director of the federal New Communities Program and a former publisher of Connection Newspapers.*