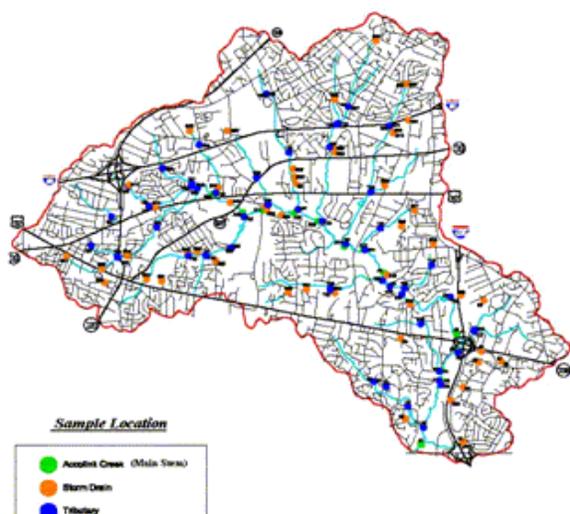


<http://water.usgs.gov/pubs/wri/wri034160/wrir03-4160.htm>

The map found below, **Figure 5**, was created by the USGS after their July 8-12, 2002 sampling event. The map shows the location of where all 96 samples were taken during this campaign. The color codes represent the type of sampling location: Accotink Creek (mainstem), a storm drain, or a tributary of Accotink Creek. Please note that this map only shows the upper portion of the Accotink Creek Watershed, from Braddock Road North because this is the area being studied.

**Figure 5. Accotink Creek TMDL Study
Sampling Locations for July 8-12,
2002 Campaign**



Four Mile Run TMDL / Implementation Plan

At the request of the Virginia Department of Environmental Quality (DEQ), the Northern Virginia Regional Commission (NVRC) entered into an agreement with the Commonwealth to prepare an Implementation Plan for the EPA-approved TMDL developed for bacteria in Four Mile Run. During 2003, NVRC worked with the four watershed jurisdictions, Fairfax and Arlington Counties and the Cities of Falls Church and Alexandria, to develop the implementation plan. A Technical Advisory Committee (TAC) was formed in May 2003 to provide input and guidance for the project. Staff from all four jurisdictions, various non-governmental organizations, the Virginia Department of Conservation and Recreation, DEQ and NVRC participated on the TAC.

Two public meetings were held during the project. The first public meeting was held in June to present the project to the public and solicit input. A second public meeting was held in December where a draft implementation plan was presented for public comment.

The draft implementation plan describes a ten-year strategy to reduce bacteria levels in Four Mile Run by targeting anthropogenic, or human-caused, sources. The strategy covers a wide array of actions from pollution reduction and mitigation efforts to outreach and education activities. Information regarding the project and copies of the TMDL and Implementation Plan are available at:

<http://www.novaregion.org/bacteriainplementation.htm>

Other TMDLs in Fairfax County

A total of 17 waterbodies with drainage areas in Fairfax County are included in Virginia DEQ's Section 303(d) listing of impaired waters for 2002. Of the listed waterbodies, 11 are riverine systems totaling 51.85 mile, 5 are estuarine systems with a total area of 23.18 square miles, and 1 is a drinking water reservoir with an area of 1,700 acres. The cause of impairment for the majority of the riverine waterbodies is either fecal coliform or general standards (benthic). For the estuarine waterbodies, the cause of impairment for the majority of systems is PCBs in fish tissue. Nine of the 17 waterbodies are multi-jurisdictional i.e. include drainage areas outside Fairfax County. Twelve of the 17 waterbodies were listed for the first time in 2002. A fecal coliform TMDL study has been completed for two waterbodies, Accotink Creek (above Lake Accotink) and Four Mile Run, which were approved by EPA on 5/31/2002.

According to the current schedule, the next TMDLs to be developed include:

Year 2006

- Popes Head Creek
- Bull Run

Year 2008

- Accotink Creek (from confluence of Calamo Branch to the tidal waters of Accotink Bay)
- Difficult Run

The remaining impaired waters require TMDL studies to be completed by 2010 or 2014.

Innovative BMPs Fairfax County

Two letters to industry on the use of BMPs have been sent to all Architects, Builders, Developers, Engineers, and Surveyors practicing in the County, one in 2001, the other in 2002, (***Appendix D***). These letters are one of the initial steps in adopting and encouraging the use of "Better Site Design" and "Low Impact Design" techniques for improving water quality control in the County. ***Procedures for requests to use innovative Best Management Practice (BMP) facilities in Fairfax County*** are defined in a Letter to Industry dated October 2, 2001. This letter details the application procedure, discusses the general design standards and application conditions, provides a list of Innovative BMPs and includes an "Innovative BMP Tracking Form." The second letter, ***Innovative BMPs - 3.07 Enhanced Extended Detention Dry Ponds Now Acceptable for Public Maintenance in Residential Areas and on Governmental Sites*** was sent on May 14, 2002. Enhanced detention dry ponds are now acceptable for public maintenance in residentially zoned areas and on governmental sites subject to compliance with the revised design standards in the "Guidelines for the Use of Innovative BMPs in Fairfax County, Virginia." The Planning and Design Division (PDD) in the Office of Capital Facilities (OCF) has undertaken an initiative to implement new and innovative approaches to addressing Best Management Practices on the sites of new and expanded County buildings, ***Figures 6 and 7***. The rain gardens/bioretenion facilities, that are being designed and implemented by PDD, have a bioretention sand filter located at the ground surface. The sand filtering material is mixed with organic material to create a filtering material that will support vegetative life. Perforated underdrains are typically installed at the bottom of the sand filter layer(s) to convey filtered, stormwater runoff to an appropriate outfall location. The embankment material and the

periphery of the rain garden are then landscaped to provide a vegetated, environmentally sensitive BMP facility that is aesthetically pleasing. Nine rain garden facilities have been installed or are in the design stages. Four of the facilities have been completed, four facilities are in the construction phase, and one facility is in the design phase. These nine rain garden facilities will provide BMP for over ten acres of impervious land. [Appendix E](#) contains information on the construction of the facilities and there locations and drainage areas.



Figure 6. Rain Garden at Mclean Community Center (Photo courtesy of PDD)



Figure 7. Sand Garden at the Mt. Vernon Police Station taken on 2/12/04 (Photo courtesy of PDD)

BMP Handbook NVRC

The Northern Virginia Regional Commission is working with local jurisdictions to evaluate and revise the 1992 edition of the Northern Virginia BMP Handbook. A Technical Advisory Committee (TAC) has been formed to guide the project. Its membership includes stormwater managers from all participating jurisdictions. The handbook revision will provide straightforward guidance for the developer and his engineering staff to create “reviewable” and “constructable” site plans regarding stormwater management facilities and for the locality to consistently and fairly review such site plans. BMP descriptions will also include expected maintenance efforts specific to individual measure to aid in managing the vast of array of stormwater treatment facilities typically encountered in Northern Virginia. Standard calculation methodologies will be addressed in the handbook including BMP sizing criteria, “Low Impact Development” technologies and the protection of downstream channels.

Stream Restoration (Partnerships)

Two stream bank stabilization projects, the Snake Den Branch in Reston and the Difficult Run mainstem in Oakton were sponsored and jointly constructed by VDOF, Reston Association (RA), NVSWCD and the Fairfax County DPWES. These stabilization projects were successful largely due to the partnership between the four organizations. The main purpose of these projects was the reduction of erosion for the protection of infrastructure and sediment reduction for the Chesapeake Bay watershed. Funds for these stabilization projects were made available from all the partners and the RA received grant and mitigating funds to help support the projects.