

Public Policy Regarding Stormwater Management

Background

- Stormwater management – a practice to manage the amount, rate and timing of the release of water runoff from a developed area to a receiving stream.
- Historically, stormwater management has focused on limiting on-site and downstream flooding.
- Increasingly, stormwater management is used to reduce the pollution levels in water runoff released from development.
- Because many Valley streams and rivers do not meet Federal and Virginia water quality standards and are contributing to the degrading of the Chesapeake Bay, localities in the Valley are being asked to address the quality of stormwater as well as the quantity.

Issues of Stormwater Quality

- Pollutants collect on both pervious and impervious ground surfaces: oil, grease, brake pad dust, trash, sediment from crop land and construction sites, bacteria from animal wastes, excess lawn, garden and agricultural fertilizers and pesticides, atmospheric deposition from the air.
- Significance of stormwater pollution
 - Sediment and other debris in the water clog fish gills, damage fish habitat, block light needed for aquatic plants, kill aquatic insects, snails and larvae on which fish feed.
 - Increased bacterial levels make swimming unsafe, can sicken animals.
 - Fertilizers provide nutrients that feed algae, causing algal blooms in lakes, reservoirs and the Chesapeake Bay. Algae deplete oxygen in the water adversely affecting aquatic life.
 - Chemicals and toxics plus all of the above pollutants require additional treatment of water to ensure drinking water safety.
 - Runoff pollution is causing many Valley streams and the Chesapeake Bay to not meet Federal and State water quality standards.

Local Stormwater Management Programs

- Minimum requirements for stormwater management - Virginia Erosion & Sediment Control Law
- Additional enabling legislation - Virginia Stormwater Management Law.
- Virginia Model Ordinance available from the Department of Conservation and Recreation.
- Valley localities that have adopted stormwater program: Clarke County, Berryville, Augusta County, Staunton, Waynesboro.
- Stormwater management program will be required for Winchester-Stephens City area by 7/1/06 – designated “MS4” by EPA.
- Virginia Department of Conservation and Recreation now requires stormwater permits for all construction projects one acre or larger. Localities will be required to coordinate with DCR.

Why should a locality adopt a stormwater management program?

- Helps protect water quality in local streams and rivers.
- Assists Virginia in implementing water quality improvement (TMDL) plans to clean up streams not meeting State and Federal water quality standards.
- Provides local control of development review and management. Prevents slow-downs and coordination problems with DCR permitting process for construction sites.
- May be required by TMDL plans or by EPA if urban development leads to MS4 designation.
- Helps with clean-up of the Chesapeake Bay as part of Virginia Tributary Strategy.

Sources of Information on Stormwater Management:

Water Quality of Virginia's Streams

- Virginia Department of Environmental Quality (DEQ) water programs home page, www.deq.virginia.gov/water/
- Virginia DEQ Water Quality Assessment Report, www.deq.virginia.gov/wqa/ir2004.html
- Virginia DEQ TMDL program, www.deq.virginia.gov/tmdl/homepage.html
- Virginia Department of Conservation and Recreation information on nonpoint source (runoff) pollution, www.dcr.virginia.gov/sw/nps.htm

Water Quality Issues for the Chesapeake Bay

- EPA's Chesapeake Bay Program, 2004 State of the Bay Report, www.chesapeakebay.net/search/pubs.htm
- Virginia Secretary of Natural Resources, Tributary Strategies for the Chesapeake Bay, www.naturalresources.virginia.gov/Initiatives/TributaryStrategies/index.cfm

Technical Information about Stormwater Management and Erosion and Sediment Control

- Lord Fairfax Soil and Water Conservation District, 130 Carriebrooke Drive, Stephens City, VA 22655, 540-868-1130
- Department of Conservation and Recreation (DCR), Staunton Regional Office, 540-332-9991
- DCR, stormwater management, www.dcr.virginia.gov/sw
- DCR, Erosion and Sediment Control, www.dcr.virginia.gov/sw/e&s.htm
- EPA's National Menu of Best Management Practices, cfpub.epa.gov/npdes/stormwatermanagement/menuofbmps/menu.cfm

Stormwater Permitting and MS4 Stormwater Program Requirements

- Virginia Department of Conservation and Recreation, Stormwater Management Program Permits and MS4 Program Requirements, www.dcr.virginia.gov/sw/vsmp.htm
- EPA site on MS4s, cfpub.epa.gov/npdes/stormwater/permreq.cfm

Model Ordinances

- Virginia Stormwater Management Law, Regulations and Model Ordinance, www.dcr.virginia.gov/sw/stormwat.htm
- Virginia Erosion and Sediment Control Law, Regulations and Model Ordinance, www.dcr.virginia.gov/sw/e&s.htm
- Stormwater Management Ordinance: Albemarle County Code, Chapter 17, www.albemarle.org/departments.asp?department=planning&relpage=5720
- Low impact development: Stafford County Code, Chapter 21.5 Stormwater, www.co.stafford.va.us/planning/

Research on Nonpoint Source Pollution Best Management Practices & Low Impact Development (LID)

- Northern Shenandoah Valley Regional Commission, LID Manual, 540-636-8800
- Stream Corridor Protection Strategy for Local Governments, University of Virginia, www.virginia.edu/ien/publications.htm
- Better Site Design Manual, www.cblad.virginia.gov/publica.cfm#bsd
- Center for Watershed Protection, www.cwp.org/index.htm