

***Stormwater Management  
Regulations:  
“What’s in the Draft”***

VAPDC Winter Meeting  
January 30, 2009

# Draft Stormwater Regulations

- Complete and controversial overhaul of stormwater regulations
- Provides minimum requirements for a Local Program
- Regulations must be adopted by ChesBay Jurisdictions
- At Sept. 24 Soil & Water Conservation Board meeting, draft regulations were approved for official comment period
  - Administrative Review
    - SNR, Governor, DPB
  - This Spring
    - 60 Day Public Comment Period
    - Public Hearings
    - EPA Review
  - Return to Board w/Final – September 09
  - 30 Day Adoption Period
  - Effective December 2009 (GOAL)

# Qualifying local program administrative requirements

- A local program shall provide for the following:
  1. Identification of the authority(ies) issuing coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities;
  2. Technical criteria to be used in the local program;
  3. Procedures for the submission and approval of plans;
  4. Inspection and monitoring of land-disturbing activities covered by a permit for compliance;
  5. Procedures or policies for long-term inspection and maintenance of stormwater management facilities; and
  6. Enforcement.
- A locality shall adopt an ordinance(s) that incorporates the components set out above.
- Consent to follow procedures provided by DCR for the issuance, denial, revocation, termination, reissuance, transfer, or modifications of coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities.
- A local program shall report to DCR information related to the administration and implementation of the local program.
- A local program may require the submission of a reasonable performance bond or other financial surety and provide for the release of such sureties.

# Water Quality

- Statewide water quality technical criteria being proposed for construction activity:
  - For new development, a 0.28 lbs/acre/year phosphorus standard is established.
  - On prior developed lands, total phosphorus loads shall be reduced to an amount at least 20% below the pre-development phosphorus load.
  - If a WLA for a pollutant has been established in a TMDL and is assigned to stormwater discharges from a construction activity, control measures must be implemented to meet the WLA.
- A local program may establish more stringent standards.
- Compliance with the water quality criteria shall be determined utilizing the Virginia Runoff Reduction Method.
- BMPs are listed in the Regulation and are available on the Virginia Stormwater BMP Clearinghouse.
- A locality may establish “use limitations” on specific BMPs.

# Water Quality (cont.)

- If water quality technical criteria can't be met on-site, off-site controls will be allowed by a local program in accordance with a Department-approved comprehensive watershed stormwater management plan.
  - Offsite reductions shall be equal to or greater than those required on the land disturbing site.
- If no comprehensive watershed stormwater management plan exists, the criteria may still be allowed to be met off-site if:
  - The local program allows for off-site controls;
  - The applicant demonstrates to the satisfaction of the local program that offsite reductions equal to or greater than those that would otherwise be required for the site are achieved;
  - The development's runoff will not result in flooding or channel erosion impacts downstream of the site or any off-site treatment area;
  - Off-site controls are located within the same HUC or the adjacent downstream HUC to the land disturbing site;
  - Verification has been received as to the legal right to use the offsite property; and
  - A maintenance agreement for the stormwater facilities is developed.

# Water Quality (cont.)

- If allowed by the local program, reductions required for a site may be achieved via a pro-rata fee sufficient to fund improvements necessary to adequately achieve those reductions.
- A local program may also waive the water quality requirements through the granting of an exception provided that:
  - The exception is the minimum necessary to afford relief.
  - Reasonable and appropriate conditions are imposed to preserve the intent of the Act.
  - Granting will not confer on the permittee any special privileges denied to others under similar circumstances.
  - The exception requests are not based upon conditions or circumstances that are self-imposed or self created.
  - Economic hardship alone is not sufficient reason to grant an exception.

# Water Quantity – Channel Protection

- Channel protection shall be achieved through one of the following:
  - Stormwater released into a man-made conveyance system from the 2yr/24hr storm shall be done so without causing erosion of the system.
  - Stormwater released into a restored stormwater conveyance system, in combination with other existing stormwater runoff, shall not exceed the design of the restored system nor result in instability of the system.
  - Stormwater released to a stable natural stormwater conveyance shall not cause the system to become unstable from 1yr/24hr storm discharge and it shall provide a peak flow rate from the 1yr/24hr that is less than or equal to the pre-development peak flow rate as ascertained by the energy balance equation. [Keep a stable stream stable.]
  - Stormwater released to an unstable natural stormwater conveyance shall provide a peak flow rate from the 1yr/24hr storm that is less than or equal to the forested peak flow rate as ascertained by the energy balance equation. [You improve an unstable streams stability.]

# Water Quantity – Flood Protection

- Flood protection shall be achieved through one of the following:
  - The post-development peak flow rate from the 10yr/24hr storm is confined within a man-made conveyance system.
  - The post-development peak flow rate from the 10yr/24hr storm is confined within a restored stormwater conveyance system.
  - The post-development peak flow rate from the 10yr/24hr storm is confined within a natural stormwater conveyance that currently does not flood.
  - The post-development peak flow rate from the 10yr/24hr storm shall not exceed the predevelopment peak flow rate from the 10yr/24hr storm based on forested conditions in a natural stormwater conveyance where localized flooding exists.
  - A local program may adopt alternative flood design criteria that achieve equivalent results.

# Water Quantity – Flood Protection

- Channel protection and flood protection criteria do not apply if:
  - The site's contributing drainage area is less than or equal to 1% of the total watershed area draining to the point of discharge, or,
  - The development of the site results in an increase in the peak flow rate from the 1yr/24hr storm that is less than 1% of the existing peak flow rate from the 1yr/24hr storm generated by the total watershed area draining to the point of discharge.

# Comprehensive Watershed Stormwater Management Plans

- Local programs may develop comprehensive watershed stormwater management plans to be approved by DCR that meet the water quality objectives, quantity objectives, or both:
  - Such plans shall ensure that offsite reductions equal to or greater than those that would be required on each contributing land-disturbing site are achieved within the same HUC, or within another locally designated watershed.
  - Pertaining to water quantity objectives, the plan may provide for implementation of a combination of channel improvement, stormwater detention, or other measures which is satisfactory to the local program to prevent downstream erosion and flooding.
  - If the land use assumptions upon which the plan was based change or if any other amendments are deemed necessary by the local program, the local program shall provide plan amendments to the Board for review and approval.
- During the plan's implementation, the local program shall account for nutrient reductions accredited to the BMPs specified in the plan.
- State and federal agencies may participate in comprehensive watershed stormwater plan.

# Stormwater Management Plans

- A local program shall require that stormwater management plans include the following elements:
  - Location of points of discharge, receiving waters, pre and post-development conditions.
  - Contact information.
  - Project narrative.
  - Location and design of stormwater management facilities.
  - Hydrologic characteristics and structural properties of the soils utilized during facility installation.
  - Hydrologic and hydraulic computations of the pre and post-development runoff conditions for the required design storms.
  - Calculations verifying compliance with the water quality and quantity requirements.
  - A site map that includes the specified elements.
  - Plans shall be appropriately signed and sealed by a professional.
  - The applicant must have submitted proposed right-of-entry agreements or easements granted from the owner to the local program for the purposes of inspection and maintenance of stormwater management facilities as well as maintenance agreements, including inspection schedules, for such facilities.
  - An approved general permit registration statement.
  - The required fee form and total fee.
- The regulation establishes timelines for determining plan and application completeness, for plan review and approval, and for plan modifications. It also establishes applicant notification requirements.

# Inspections

- Inspections shall be conducted as follows :
  - The local program or its designee shall inspect the land disturbing activity during construction.
  - At the termination of the project and prior to bond or surety release of the performance bond or surety, construction record drawings for the permanent stormwater facilities shall be submitted to the local program.
  - The owner of the stormwater management facilities shall conduct inspections in accordance with the inspection schedule in the recorded maintenance agreement and shall submit the inspection report to the local program.
  - The local program shall develop a Board approved inspection schedule.

# Enforcement

- A local program may incorporate the following components:
  - Informal and formal administrative enforcement procedures
  - Civil and criminal judicial enforcement procedures
- A qualifying local program shall develop policies and procedures that outline the steps to be taken regarding enforcement actions under the Stormwater Management Act and attendant regulations and the local ordinance.
- Regulation establishes a Schedule of Civil Penalties as guidance for a court as required by law.

# Maintenance

- Responsibility for the operation and maintenance of stormwater management facilities, unless assumed by a governmental agency, shall remain with the property owner or other legally established entity and shall pass to any successor.
- The government entity implementing the local program shall be a party to each maintenance agreement. Such maintenance agreement shall include:
  - a schedule for inspections by the owner, and,
  - ensuring that each facility is maintained as designed,
  - shall ensure that the designed flow and drainage patterns from the site to a permanent facility are maintained
- Should the local program find it necessary to perform maintenance and repairs, the local program can recover the costs from the owner.
- The local program shall be notified of any transfer or conveyance of ownership or responsibility for maintenance of a stormwater management facility.
- The local program shall require right-of-entry agreements or easements from the property owner for purposes of inspection and maintenance.

# Reporting

- Annual reports to DCR on a fiscal year basis by October 1st to include:
  - Information regarding permanent stormwater facilities completed during the fiscal year (ie., type of stormwater management facility, coordinates, acres treated, and the surface waters into which the stormwater management facility will discharge).
  - Number of permitted projects inspected by acreage categories.
  - Number and type of enforcement actions taken.
  - Number of exceptions granted or denied.

# Local Plan Authorization

- A locality required to adopt a program or those electing to seek authorization to administer a local program must submit to the Board an application package which, at a minimum, contains the following:
  - The local program ordinance(s);
  - A funding and staffing plan based on the projected permitting fees; and
  - The policies and procedures, including but not limited to, agreements with Soil and Water Conservation Districts, adjacent localities, or other entities, for the administration, plan review, permit issuance, inspection and enforcement components of the program.
- The Board or its designee shall have 20 calendar days to determine the completeness of the application package.
- Upon receipt of a complete application package, the Board or its designee shall have 90 calendar days to either approve or disapprove the application, or notify the locality of a time extension for the review, and communicate its decision to the locality in writing.
- DCR shall operate a program in any locality in which a qualifying local program has not been adopted.

# Local Plan Review

- DCR shall review each board-approved qualifying local program at least once every five years. The review shall consist of the following:
  - An interview between department staff and the local program administrator or his designee;
  - A review of the local ordinance(s) and other applicable documents;
  - A review of a subset of the plans approved by the local program and consistency of application including exceptions granted;
  - An accounting of the receipt and of the expenditure of fees received;
  - An inspection of regulated activities; and
  - A review of enforcement actions and an accounting of amounts recovered through enforcement actions.

# Fee Schedule

- Permit fees schedule established to cover local stormwater program costs associated with plan review, permit review and issuance, inspections, enforcement, program administration and oversight, and travel. Fees also include costs associated with DCR oversight functions and database management.
  - 50% of the fees are due upon application and the remaining 50% at issuance of coverage.
  - The fees are split 72% to the local program and 28% to the Department.
- Localities may establish lower fees for their program if they can demonstrate ability to fully and successfully implement a qualifying program at a lower rate or from a different funding source.
- Fees shall be periodically assessed and revised as necessary through regulatory actions.
- Although the Regulation contains local program post-construction requirements, the fee schedule does not incorporate those costs.
- A local program may waive or reduce the Stormwater Construction Permit fee due, however, the qualifying local program shall remit the 28% portion that would be due to DCR if such fee were charged in full.

- Permit fees are established for:
  - Municipal Separate Storm Sewer Systems new coverage (Individual and General Permit)
  - Municipal Separate Storm Sewer Systems major modifications (Individual)
  - Construction activity coverage (Individual and General Permit) (based on project acreage)
  - Construction activity modifications or transfers (Individual and General Permit) [For those permits that require significant additional administrative expenses such as additional plan reviews, etc.]
  - MS4 and Construction activity annual permit maintenance fees (Individual and General Permit)
- For those projects that have not been completed and terminated within a year, allows for recovery in the out years of expenses associated with inspection, enforcement, etc.
- Allows for an annual increase in fees based on the CPI.

# MS4 Fees – Your Budget

- Fee schedule for new VSMP MS4 permit issuance:
  - VSMP Municipal Stormwater / MS4 Individual (Large and Medium) ~~\$21,300~~ \$16,000
  - VSMP Municipal Stormwater / MS4 Individual (Small) ~~\$2,000~~ \$8,000
  - VSMP Municipal Stormwater / MS4 General Permit (Small) ~~\$600~~ \$4,000
- Schedule for annual VSMP MS4 maintenance fee, including those that have been administratively continued:
  - VSMP Municipal Stormwater / MS4 Individual (Large and Medium) ~~\$3,800~~ \$8,800
  - VSMP Municipal Stormwater / MS4 Individual (Small) ~~\$400~~ \$6,000
  - VSMP Municipal Stormwater / MS4 General Permit (Small) \$4,000
- Individual and General Permit Construction Permit fee based on project acreage:
  - Significant questions regarding ability to fully fund program
  - Additional staffing needs ??

# Still Missing

- BMP Handbook
  - TAC to start meeting soon
  - Several Draft Chapters based on NV LID Supplement
- BMP Clearinghouse
  - Operational, but....
- Economic Analysis
  - VT's draft had "errors"
  - DBP / Nut Mgt Reg Rev Out?
- James River Assn's study by Williamsburg Env'tl Group
  - Not released yet, advertised as proving feasibility of Tech Criteria

# NoVa. Comment/ Response

- Anticipate Spring Publication
- Individual Jurisdiction Review
  - Development Impacts
  - Redevelopment Impacts
  - Fee Adequacy
  - Staffing Requirements
- Response from Region and Presentation

# ***2009 Stormwater Legislation***

VAPDC Winter Meeting

January 30, 2009

# Stormwater Legislation of Interest

- **HB 1991 (Bulova) Establishment of stormwater programs by localities.** This bill addresses timing for start-up of the anticipated new site development regulations. The bill adds 3 months to the window (deadline) for adoption of a local program. It also provides that the effective date of the new regulations would be no earlier than July 1, 2010. The bill effectively adds about 6 months to 9 months for the adoption of a local program.
  - Status: passed House BLOCK VOTE (98-Y 0-N)
  - Senate: Referred to Committee on Agriculture, Conservation and Natural Resources
- **HB 2168 (Abbitt) Stormwater offsets.** Authorizes permit-issuing authorities to allow stormwater permit holders to comply with nonpoint nutrient runoff water quality criteria by either (i) acquiring offsite nonpoint nutrient offsets that have been certified under the Chesapeake Bay Nutrient Exchange Program or (ii) through water quality measures contained in a regional stormwater management plan. The offsets have to be in the same tributary as the permitted activity. The bill also requires an offset broker to pay the permit-issuing authority a fee equal to six percent of the amount paid by the permittee for the offsets.
  - Status: House: Subcommittee recommends reporting with amendment(s)

# Stormwater Legislation of Interest

- **HB 1856 (Shannon) Virginia Residential Property Disclosure Act; disclosure of stormwater detention facilities.** Provides that an owner of real property makes no representations with respect to the presence of any stormwater detention facilities located on the property and that purchasers are advised to exercise whatever due diligence they deem necessary to determine the presence of any stormwater detention facilities on the property, in accordance with terms and conditions as may be contained in the real estate purchase contract, but in any event, prior to settlement pursuant to that contract. .
  - Status: passed House BLOCK VOTE (98-Y 0-N)
- **SB 982 (Wagner) Regulation of stormwater.** This bill would change the current authority in the stormwater utility statute for a locality to provide waivers of charges, to persons who develop, redevelop or retrofit to reduce stormwater flow and pollutant loads, from permissive (“may”) to mandatory (“shall”). Under current law, localities have the option of providing such waivers.
  - Senate: Referred to Committee on Local Government

# Stormwater Legislation of Interest

- **SB 984 (Wagner) Chesapeake Bay Preservation Act; stormwater regulations.** Requires that the Chesapeake Bay Local Assistance Board adopt regulations that treat swimming pools and any other impoundments of surface waters, including fountains and retention ponds, as permeable surfaces for the purposes of stormwater management.
  - Status: [Senate: Referred to Committee on Agriculture, Conservation and Natural Resources](#)
- **SB 1114 (Ticer) Stormwater management; emerging technology.** Directs the Virginia Soil and Water Conservation Board to adopt regulations that provide for the evaluation and potential inclusion of emerging or innovative stormwater control technologies, such as steel slag, that prove effective in reducing nonpoint source pollution.
  - Status: [Senate: Reported from Agriculture, Conservation and Natural Resources \(15-Y 0-N\)](#);
  - Senate: Read second time and engrossed

# ***Chesapeake Bay TMDL Update***

Northern Virginia MS4 Workgroup

October 28, 2008

# *Total Maximum Daily Load (TMDL) Background*

- Required by Section 303(d) of the Clean Water Act and EPA regulations
  - States list waters not meeting Water Quality Standards on the impaired waters list (§303(d) list)
  - States/EPA develop pollution budget (TMDL) for listed pollutant
    - Identifies maximum pollutant load for point and nonpoint sources
    - Loading budget must meet WQS
- Implementation
  - Through Section 402 of the CWA (NPDES permits for point sources)
  - Voluntary with Section 319 grant assistance for nonpoint sources
  - EPA does not approve implementation as part of the TMDL

# *Why develop a TMDL for the Bay?*

- **Chesapeake 2000 Agreement provides 2010 goal to correct nutrient and sediment problems**
  - The goal is indexed to the Impaired Waters list under 303(d) of the Clean Water Act
  - Bay waters and tidal tributaries were listed as impaired under 303(d) list in 1998 Lists for VA, MD and DC
- **Legal Obligations: Consent Decree settlements with VA and DC plaintiffs cite deadlines of:**
  - May 2010 for State developed TMDL
  - May 2011 for EPA established TMDL as backstop
  - May 2011 for Potomac River pH/nutrient TMDL (extended)

# *Who will develop the TMDL?*

- EPA Region 3 Water Protection Division establishes Bay Watershed TMDLs
  - Watershed states provide input and support on the Bay TMDL
  - A Stakeholder committee under the CBP provides key input (Water Quality Steering Committee)
    - Urban Stormwater Workgroup has “stuck its nose under the tent”

# *Accelerated Bay TMDL Schedule*

- Establish TMDL by Dec. 31, 2010 instead of May 1, 2011 consent decree deadline
  - Per PSC June 2008 decision
  - Shortened schedule will decrease time available for public participation and state's tributary strategy development
- Develop Bay-wide TMDL cap by Dec. 2008
- Develop basin-jurisdiction caps by Oct. 2009
- Detailed Draft Tributary Strategies by June 2010

# *EPA's Position on Bay TMDL*

- Scope: 6 states and District of Columbia in TMDL
- Expectations apply to Bay TMDL, not all TMDLs
- Given past Bay Program efforts, reasonable assurance provisions are on more comprehensive end of spectrum
- Acceleration of Bay restoration does not rely only on TMDL reasonable assurance provisions
  - Broader “reasonable assurance and implementation framework” with components within and accompanying TMDL

# *TMDL Scope*

- Address all tidal impaired waters on the states 2008 303d lists
- Nutrients (nitrogen and phosphorus) and sediment
- TMDL allocations to all watershed states
  - Maryland
  - Virginia
  - Delaware
  - District of Columbia
  - New York
  - Pennsylvania
  - West Virginia

# *Bay TMDL Scale of Allocations*

- Tidal States (MD, VA, DE) and DC
  - Individual WLAs for point sources (includes MS4)
  - Separate LAs for each nonpoint source sector
  - EPA's preference is to subdivide allocations to smaller units (e.g., counties, conservation districts, or subwatersheds)
  - EPA will work with each jurisdiction to set appropriate scale
- Non-tidal States (PA, NY, WV)
  - Gross WLA and LA to major basin in each jurisdiction if supported by tributary strategy with sufficient detail
  - EPA can assign WLAs to individual point sources, if necessary

# *Implementation Framework*

*(based on September 11, 2008 EPA letter)*

- EPA believes Bay partners have knowledge of information that goes well beyond usual level available when developing TMDL
- Jurisdictions will conduct the following components:
  1. Revise tributary strategies to identify controls needed to meet TMDL allocations\*
  2. Evaluate existing programmatic, funding, and technical capacity to fully implement tributary strategy\*
  3. Identify gaps between needed controls and existing capacity\*
  4. Commit to systematically fill gaps
  5. Commit to track, monitor, and assess progress at set times
  6. Accept contingency requirements if milestones are not met
- Emphasis on fulfilling commitments, but contingencies for failure could include redoing TMDL or tighter effluent limits

\* Similar to previous tributary strategy efforts

# Virginia's MS4 Framework

## DRAFT, INITIAL, PRELIMINARY, Discussion ONLY

1. CBP determines baseline land use acreages for year 2010 and determines potential growth via Peter Claggett's method for predicting future urbanization or by addition of some percentage of loads estimated in step 5 below.
2. WLAs for MS4s to be assigned on basin basis. The waste load allocation for each basin would be derived from the combined jurisdictional area of Phase I localities and the total regulated land area of Phase II Urbanized Areas outside of Phase I jurisdiction based on the current urbanized maps produced by the US Census Bureau plus additional growth determine as described in step 1 above.
3. CBP estimates the drainage area potentially regulated by the MS4s on applicable Phase 5.x WSM 2010 land uses as described in steps 1 and 2 above for the high intensity impervious urban, low intensity impervious urban, and barren land uses.
4. Determine the level or percentage of the regulated urban land uses being treated by one or more simulated SWM BMPs (current calibrated SWM BMP levels or Tributary Strategy levels).
5. Run simulation utilizing SWM BMPs in Phase 5.x or Tributary Strategy treatment levels on the regulated urban land uses summed to the basin level as described in steps 1 through 4 above.
6. The WLA would be the loadings from the regulated and treated portion of the overall Phase 5.x urban land use loadings plus any growth estimates as estimated in steps 1 through 5 above. The remainder would be considered Load Allocation (LA) from the non-regulated urban land uses.

# Questions about TMDLs & MS4s

- How will Bay TMDL be incorporated?
  - Watershed level??
  - Re-open Permit??
- In impaired waters how does MS4 deal with new development or discharges??
- How is progress going to be measured??

# Reason to be concerned ?

- Tributary Strategy Scenario – 5.1
  - **Initial Findings:** DO standard attainment appears to be insufficient. The relatively slight standard attainment may be due to relatively little nutrient reductions compared to the Phase 4.3 Tributary Strategy Scenario.
    - Nursery area error in Phase 5.1. (Patch is underway for correction of this error.)
    - Less BMP reductions due to more realistic BMP behavior (Analysis under way.)
    - Higher loads from the coastal plain due to better load information from monitoring, modeling and science. (To be examined.)
    - Higher flow and load years used from 1994 to 2000 compared with 1985 to 1994.

# NVRC

- Continue to be involved in TMDL/MS4 Discussions
  - Model Inputs
  - TMDL Framework
  - Permit Integration
  - Presentation to Water Quality Steering Committee
- Integrate Jurisdictions where possible
- 2030 Data Review
  - Comments to DCR
  - Review CBP Revisions
- Be involved in Re-allocation/Splits Discussion