THE VIRGINIA STORMWATER MANAGEMENT REGULATIONS

http://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+4VAC50-60-10
Va. SWM Regulations: Overview

• This session will familiarize you with key objectives and requirements in the SWM regulations.
• Core regulatory requirements in Parts 1-3 (4 VAC 50-60-10 through 4VAC50-60-150 – recently revised).
• Entire regulation is over 150 pages long.
What Is the Current Status the Regulations?

- Virginia Soil and Water Conservation Board adopted regulations on May 24, 2011
- Regulations submitted for administration review during summer 2011
  - Secretary of Natural Resources
  - Department of Planning and Budget
  - Governor’s Office
- Governor signed off – regulations became effective on September 13, 2011
- Between September 2011 and July 2014, localities develop and adopt programs and local ordinances
- Implemented July 2014 through the construction general permit and local program ordinances
- Can use new BMP Design Specifications along with new Runoff Reduction Method Spreadsheet compliance calculator now, if locality approves
What Must You Comply With Now?

• Continue to use the existing rules, SWM Handbook (Blue Book, 1999), BMP design specifications until July 2014 pursuant to:
  o Existing local ordinance
  o Existing General Construction Permit

• New local ordinances or ordinance revisions adopted pursuant to these revised state regulations may not become effective until July 1, 2014.
Local implementation is key

- Required to adopt or revise local SWM ordinance/program (all Bay Act localities plus MS4s)
- Has option to adopt local SWM ordinance/program (if not, DCR will implement SWM within locality)
What’s In the Regulations?

• Provides a framework for administration, implementation and enforcement of the Act and establish procedures and requirements to be followed in connection with VSMP permits.

• Applicable to every entity that establishes a SWM program; DCR in its oversight or administration of local programs; state agency projects; and private land-disturbing activities.
Technical Criteria

• The technical criteria have been revised.
• The revisions rescind a number of general criteria altogether.
• Except for grandfathered projects, the new regulations also replace the existing water quality protection criteria (choice of performance criteria or technology criteria), with new compliance method (Runoff Reduction Method) and pollution removal threshold.
What Projects Must Comply?

- Any land development project regulated under the Virginia Stormwater Management Act (§10.1-603.8, Code of Virginia) must comply, unless exempted via §10.1-603.8 B.

- Projects with land disturbance areas between 2,500 square feet and 1 acre within jurisdictions subject to Chesapeake Bay Preservation Act (§10.1-2100 et seq., Code of Virginia) must comply with the regulatory criteria, but not required to obtain a VSMP General Construction Permit (4 VAC 50-60-51).
Grandfathering (4 VAC 50-60-48)

- Land disturbing projects that have established one or more specified local approvals prior to July 1, 2012 and have become subject to the VSMP General Construction Permit prior to July 1, 2014 will be grandfathered through June 30, 2019 or termination of the permit (whichever comes first) AND subject to the SWM criteria of previous regulations (set forth in Part II-C of new regulations), assuming the project keeps its GCP renewed annually.
Stormwater Plans/Permits Required (4 VAC 50-60-54 through 59)

• A Stormwater Pollution Prevention Plan (SWPPP) must include an approved E&S Control Plan, and approved SWM Plan, and a Pollution Prevention Plan.

• Exceptions may be requested and will be considered pursuant to 4 VAC 50-60-122.

• VSMP permit application requires a complete and accurate registration statement via official DCR form, signed by operator in accordance with 4 VAC 50-60-370.
SW Quality Technical Criteria: Water Quality (4 VAC 50-60-63 & 65)

• Total Phosphorus (TP) still used as indicator pollutant to determine compliance with water quality criteria.

• Previous phosphorus load limit for new development: TP \( \leq 0.45 \text{ lb./acre/year} \) (based on 16% average impervious cover of the Virginia Chesapeake Bay watershed in 1988) from the impervious portion only of the development site.

• New phosphorus load limit for new development: 0.41 lb./acre/year (based on an average small watershed impervious cover of 10%, the upper limit for healthy streams, pursuant to the Center for Watershed Protection’s Impervious Cover Model)
SW Quality Technical Criteria:  
Must Meet Stricter TMDL Requirements

• However, localities must ensure that any stricter water quality requirements that apply within their jurisdictions are met (e.g., Chesapeake Bay or other TMDL LA’s or WLA’s)

• Chesapeake Bay TMDL (and local responses) also include pollutant thresholds for Total Nitrogen (TN) and Sediment (TSS or SSC)
SW Quality Technical Criteria: Redevelopment

• *Previous* pollution removal requirement for *redevelopment*, or “development on prior developed land”): reduce existing TP discharge by 10%, based on *impervious portion only* of redevelopment site.

• For *redevelopment* sites where SWM practices previously installed, new TP discharge not allowed to exceed original discharge.
Redevelopment Water Quality Criteria

• **New redevelopment** TP standards:
  o Reducing existing TP discharge by either 10% (if < 1 ac. disturbance) or 20% (> 1 ac. disturbance), *IF* amount of impervious cover on site is *NOT* increased.
  o If impervious cover *IS* increased, increased portion of IC must meet *new development* TP load limit.
  o **Backstop:** Regardless of what percentage TP reduction applies, applicant never required to reduce TP below threshold applicable to a new development project.
Redevelopment Water Quality

• Also proposed:
  o Linear (e.g., VDOT redevelopment projects (adding a lane, straightening a curve, etc.) must reduce the existing TP load by 20%, regardless of whether impervious cover is increased.
Water Quality Compliance Calculations (4 VAC 50-60-65)

• The Virginia Runoff Reduction Method (RRM, a Microsoft Excel spreadsheet), calculates TP loads and BMP treatment volumes required to be met on the site.

• Runoff volume now calculated for entire site, not just impervious area.

• Composite runoff coefficient based on three land cover conditions: (1) impervious cover, (2) disturbed area/managed turf, (3) forest cover/conserved open space.
Water Quality Volume vs. Treatment Volume

- **Previous regs** require “water quality volume” be calculated by multiplying 0.5” of runoff X the site’s impervious area.

- This volume used to determine the size of the BMP(s) installed to remove pollution from runoff.

- **New regs** require a “treatment volume” to be calculated by multiplying the composite runoff index X 1” of rainfall (90th percentile storm event in VA) X entire site area (including managed turf and forest/open space land cover categories).
Water Quality Storm Event

Rainfall Frequency Analysis from Reagan Int’l Airport

DCR evaluated rainfall at five different sites around VA to arrive at the 1” average:

- Washington Reagan Airport
- Richmond Airport
- Harrisonburg
- Lynchburg
- Bristol
Disturbed Soils and Managed Turf

- Disturbed soils at development sites are often compacted to nearly the same density as concrete.

- Adding disturbed soils/managed turf in the runoff coefficient calculation results in controlling more runoff than before.
Soils and Turf (continued)

- Also results in a higher TP load to be treated, largely due to fertilizer residue in the soil.
- However, we must account for these legacy loads of nutrients in order to meet Bay TMDL targets.
Application to Portion of Site or Drainage Areas

• Where land disturbance occurs on only a portion of total site, new regs *do not disallow* basing plan on that portion ("planning area") only, including any area required to be left undeveloped or otherwise proffered.

• Locality may require design criteria to be applied to each drainage area of site. However, if site drains to more than one Hydrologic Unit Code (HUC), pollutant load reduction *must* be applied independently to each HUC, unless local comprehensive watershed SWM plan applies (4 VAC 50-60-65 E).
New SWM BMP Design Spec’s

• Proposed regulation includes list of improved and new BMPs developed by the CWP and CSN to treat runoff from land development.

• Improved designs based on decades of SWM BMP research & monitoring, reflected in the National Stormwater Quality Database.

• Improved pollutant removal efficiencies reflect runoff volume reduction AND EMC reduction due to the BMP’s treatment mechanism(s).

• Spec’s incorporate design features proven to work well, and avoid design features proven to work poorly.

• Other BMPs may be used if listed on the Virginia Stormwater BMP Clearinghouse web site, at http://www.vwrrc.vt.edu/swc/NonProprietaryBMPs.html
# Improved Nutrient Removal

**Table 1. Comparative Runoff Reduction and Nutrient Removal for Practices**

<table>
<thead>
<tr>
<th>Practice</th>
<th>Design Level</th>
<th>Runoff Reduction</th>
<th>TN EMC Removal</th>
<th>TN Load Removal</th>
<th>TP EMC Removal</th>
<th>TP Load Removal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rooftop Disconnect</td>
<td>1</td>
<td>25 to 50 †</td>
<td>0</td>
<td>25 to 50 †</td>
<td>0</td>
<td>25 to 50 †</td>
</tr>
<tr>
<td>Sheet Flow to Veg. Filter or Conserv. Open Space</td>
<td>1</td>
<td>25 to 50 †</td>
<td>0</td>
<td>25 to 50 †</td>
<td>0</td>
<td>25 to 50 †</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>50 to 75 †</td>
<td>0</td>
<td>50 to 75 †</td>
<td>0</td>
<td>50 to 75 †</td>
</tr>
<tr>
<td>Grass Channels</td>
<td>1</td>
<td>10 to 20 †</td>
<td>20</td>
<td>15</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Soil Compost Amendment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetated Roof</td>
<td>1</td>
<td>45</td>
<td>0</td>
<td>45</td>
<td>0</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>60</td>
<td>0</td>
<td>60</td>
<td>0</td>
<td>60</td>
</tr>
<tr>
<td>Rainwater Harvesting</td>
<td>1</td>
<td>Up to 90 †</td>
<td>0</td>
<td>Up to 90 †</td>
<td>0</td>
<td>Up to 90 †</td>
</tr>
<tr>
<td>Permeable Pavement</td>
<td>1</td>
<td>45</td>
<td>25</td>
<td>59</td>
<td>25</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>75</td>
<td>25</td>
<td>81</td>
<td>25</td>
<td>81</td>
</tr>
<tr>
<td>Infiltration Practices</td>
<td>1</td>
<td>50</td>
<td>15</td>
<td>57</td>
<td>25</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>90</td>
<td>15</td>
<td>92</td>
<td>25</td>
<td>93</td>
</tr>
<tr>
<td>Bioretention Practices</td>
<td>1</td>
<td>40</td>
<td>40</td>
<td>64</td>
<td>25</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>80</td>
<td>60</td>
<td>90</td>
<td>50</td>
<td>90</td>
</tr>
<tr>
<td>Urban Bioretention</td>
<td>1</td>
<td>40</td>
<td>40</td>
<td>64</td>
<td>25</td>
<td>55</td>
</tr>
<tr>
<td>Dry Swales</td>
<td>1</td>
<td>40</td>
<td>25</td>
<td>55</td>
<td>20</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>60</td>
<td>35</td>
<td>74</td>
<td>40</td>
<td>76</td>
</tr>
</tbody>
</table>

*Note: Runoff Reduction values are estimates and may vary based on site-specific conditions.*

---

**DCR**

Virginia Department of Conservation & Recreation
SWM Reg Technical Criteria: Water Quantity (4 VAC 50-60-66)

- To protecting physical integrity of downstream receiving channels and preventing downstream flooding
Quantity: Stream Channel Protection

- The *previous* regs require developers to:
  - Discharge to an “adequate” channel (i.e., channel has capacity/lining to convey site runoff discharge without eroding or overtopping its banks).
  - *In all cases*, discharge rate (velocity) of post-development 2-year 24-hour storm may not exceed rate of the same 2-year pre-development storm.
New Stream Channel Protection

• *New* regs propose to change the control storm for some situations to the *1-year 24-hour storm event*

• 2-year event will almost always overwhelm a natural channel.

• Also, detention and release of the larger 2-year storm tends to extend the time the channel remains full, saturating the banks and causing erosion.
New Stream Channel Protection

- In Richmond, 1-year 24-hour storm event = ~2.75” rainfall, whereas the 2-year 24-hour storm event = ~ 3.35”, so we’re managing less volume.
- Revised regs propose to manage channel protection and flood protection situationally, based on type of channel to which runoff discharges.
- Revised reg addresses four downstream receiving channel situations
1. Man-Made Receiving Channel

After development, channel must convey peak flow rate of post-development 2-year 24-hour storm without causing erosion of the system and the peak discharge for concentrated flow to a natural stormwater conveyance system (situation 3) must also be met.

(Note: man-made stormwater conveyance systems have been designed previously to not erode from a 2-year storm and not flood from a 10-year storm.)
2. Restored Receiving Channels

Existing (functioning as designed) or proposed *restored stormwater conveyance system*: Runoff may not, in combination with other runoff draining to the channel, exceed design parameters of the restored channel system,

*OR*

Peak discharge for concentrated flow to a *natural stormwater conveyance system* (situation 3) must be met.
3. Stable Natural Receiving Channel

Maximum peak flow rate from post-development 1-year 24-hour storm must be calculated either:

- Using DCR’s Energy Balance Equation (based on both peak discharge and volume), OR
- Using another methodology demonstrated by the local SWM program to achieve equivalent results and approved for their use by Virginia Soil and Water Conservation Board.

- Energy Balance Equation models dynamic that stream channels are formed naturally in response to both peak discharge AND volume of discharge.
Energy Balance Equation

\[ Q_{\text{Developed}} \leq I.F. \times (Q_{\text{Pre-developed}} \times RV_{\text{Pre-developed}}) / RV_{\text{Developed}} \]

Under no condition may \( Q_{\text{Developed}} \) be greater than \( Q_{\text{Pre-developed}} \), nor may \( Q_{\text{Developed}} \) be required to be less than that calculated in the equation: \( (Q_{\text{Forest}} \times RV_{\text{Forest}}) / RV_{\text{Developed}} \), where:

I.F. (improvement factor) = 0.8 for sites > 1 ac. or 0.9 for sites \( \leq 1 \) ac.

\( Q_{\text{Developed}} = \) Allowable peak flow rate of runoff from developed site

\( RV_{\text{Developed}} = \) Volume of runoff from site in developed condition

\( Q_{\text{Pre-developed}} = \) Peak flow rate of runoff from site in pre-developed condition

\( RV_{\text{Pre-developed}} = \) Volume of runoff from site in pre-developed condition

\( Q_{\text{Forest}} = \) Peak flow rate from site in forested condition

\( RV_{\text{Forest}} = \) Volume of runoff from site in forested condition
Computing Pre-Development Runoff

• All pervious lands on the site assumed to be in “good hydrologic condition” in accordance with USDA-NRCS standards, regardless of the actual conditions existing at the time of computation.

• Other hydrologic conditions may be used for these computations if it is demonstrated that actual site conditions warrant such consideration and local government approves.
Limits of Analysis for Channel Protection

• **1 percent rule:** Unless situation 3 is used to show compliance with channel protection criteria, stormwater conveyance systems must be analyzed for compliance with channel protection criteria to a point where either:
  
  o The *contributing drainage area* (CDA) at point of discharge is less than or equal to 1% of the total watershed draining to that point; **OR**
  
  o Based on *peak flow rate*, site’s peak flow rate from a 1-year 24 hour storm is ≤ 1% of the existing peak flow rate for the same storm prior to implementation of any stormwater quality control measures
Flood Protection

• Concentrated stormwater flow must be released into a stormwater conveyance system and must meet one of the following criteria, demonstrated using acceptable hydrologic and hydraulic methods:
1. Discharge to a System that Does NOT Have Localized Flooding from a 10-year 24-hour storm event

- The receiving conveyance system confines the post-development peak flow from the 10-year 24-hour storm within the conveyance system (includes flood fringe).
- Local SWM program may allow detention to be used to meet this requirement.
2. Discharge to a System that **DOES** Currently Have Localized Flooding During a 10-year 24-hour Storm Event

A. Receiving conveyance system confines post-development peak flow from 10-year 24-hour storm *within* the conveyance system.
   - Local SWM program may allow detention to be used to meet this requirement; **OR**

B. Release post-development peak flow rate for 10-year 24-hour storm that is *less than* the pre-development peak flow rate for that same storm event.
Limits of Analysis for Flood Protection

- **1 percent rule:** Unless option 2-B is used to show compliance with flood protection criteria, stormwater conveyance systems must be analyzed for compliance with flood protection criteria to a point where either:
  - The contributing drainage area (CDA) at point of discharge is less than or equal to 1% of the total watershed draining to that point; OR
  - Based on peak flow rate, site’s peak flow rate from a 10-year 24 hour storm is 1% of the existing peak flow rate for the same storm prior to implementation of any stormwater quality control measures.
  - The stormwater conveyance system enters a mapped floodplain or other flood-prone area, adopted by ordinance, of any locality.
Sheet Flow Discharge

• Increased volumes of sheet flow from site must be evaluated for potential impacts to down-gradient properties and resources

• Increased sheet flows that will cause or contribute to erosion, sedimentation or flooding must be diverted through a SWM BMP or an adequate conveyance system

• If ALL site runoff is sheet flow and above requirements are met, then water quantity requirements are satisfied for the project
Design Storms & Quantity Criteria Tools
(4 VAC 50-60-72)

• Receiving channel evaluation guidance provided in DCR’s Stormwater Program Technical Bulletin #1, entitled, Stream Channel Erosion Control.

• Rainfall depths from 1-year, 2-year and 10-year 24-hour design storms determined using site-specific rainfall precipitation frequency data provided by NOAA Atlas 14 (http://hdsc.nws.noaa.gov/hdsc/pfds/).

• Partial duration time series must be used for precipitation data.

• Other analyses must be conducted using the USDA TR-55 and TR-20 and U.S. Army Corps of Engineers methods or other equivalent standard engineering methods.

• Rational Method or Modified Rational Method may be used, if allowed by the local program, for drainage areas of 200 acres or less.
SWM Impoundments  
(4 VAC 50-60-85)

- SWM impoundments not covered by Va. Impounding Structure Regs (4 VAC 50-20) must be engineered for structural integrity for the 100-year storm
- Specific conditions apply to use of SWM impoundments in karst areas
- Any Class V Underground Injection Control Well registration statements for stormwater discharges to improved sinkholes must be included in the SWPPP
Potential Off-Site Compliance Options
(4 VAC 50-60-69)

- Compliance with comprehensive SWM plan for watershed within which project is located
- Compliance with a local pollutant loading pro rata share program established in accordance with §15.2-2243, Code of Virginia
- Compliance with the Nonpoint Nutrient Offset (Trading) Program established by §10.1-603.8:1, Code of Virginia
- Other off-site options approved by applicable state agency/board
- SWM solutions at other properties owned by operator in same or upstream HUC, as determined by local program
Off-Site Compliance Criteria

• Operators may use these options under following conditions:
  o Available for water quality and quantity compliance
  o Less than five acres of land is disturbed
  o Required post-construction TP load reduction <10 lbs./yr.
  o Must achieve at least 75% of TP reduction on-site, unless applicant can convince approving authority:
    ➢ Alternative site designs with on-site BMPs considered to MEP
    ➢ Appropriate on-site BMPs will be implemented
    ➢ Full compliance with post-construction nonpoint nutrient reduction requirements cannot practicably be met on-site
    ➢ Local program agrees with above analysis and approves allowing some-to-all compliance to be achieved off-site
Off-Site Compliance Limitations

• Off-site compliance options may NOT be allowed:
  o Unless selected off-site option achieves necessary nutrient reductions prior to operator’s land disturbing activity
    ➢ If phased project, must achieve reductions for a specific phase prior to commencement of that phase’s land disturbance
  o In contravention of local water quality-based limitations at point of discharge
    ➢ Pursuant to § 62.1-44.19:7, Code of Virginia (plans to address impaired waters)
    ➢ Contained in community’s MS4 plan approved by DCR
    ➢ As otherwise established or approved by the Va. SWCB
Comprehensive Watershed SWM Plans

- Must address water quality, water quantity, or both objectives of state regulations
- Must ensure that off-site reductions equal to or greater than those required on each contributing land-disturbing site are achieved within same HUC or another locally-designated watershed
- To prevent downstream erosion and flooding, plan may provide for combination of channel improvement, detention or other measures satisfactory to local program
Comprehensive Watershed SWM Plans

- If land use assumptions upon which plan is based change or other amendments considered necessary, local program must provide amendments/changes to Va. SWCB for review/approval.
- During plan implementation, local program must account for nutrient reductions accredited to BMPs specified in plan.
- State/federal agencies may develop their own comprehensive SWM plans or may participate in locality plans, as allowed by the local program.
Criteria for Grandfathered Projects

• Part 2C of the regulations (4VAC50-60-94 through 4VAC40-60-99) contains some of the currently existing water quality criteria that may continue to apply to Grandfathered projects (those started pursuant to the current regulations but not completed when the new regulations begin to apply).
Grandfathering: Water Quality Criteria

• The main elements of this grandfathering section are:
  o Inclusion of the 13 General Criteria deleted in the main body of the water quality criteria;
  o Inclusion of the “Performance Criteria” option from the current regulations (4 Situations); AND
  o Inclusion of the Technology-Based Criteria from the current regulations (BMP selection Table).
Grandfathering: Water Quality Criteria

- BMP design spec’s used for grandfathered projects are existing spec’s in Chapter 3 of 1999 SWM Handbook and referenced in current regulations.
- The pollutant load calculation procedure to be used for grandfathered projects is the “Simple Method” calculation required in the current regulations and explained in Chapter 13 of the 1999 SWM Handbook.
Grandfathering:
Water Quality Criteria

• **Performance Criteria**: The pollution reduction that applies to grandfathered projects is based on four “situations:”

1. No reduction in after-development pollution required if after-development imperviousness of site \( \leq \) “average land cover condition” – either 16% (Virginia Chesapeake Bay watershed average) or more specific locally-calculated average.

2. After-development pollutant discharge may not exceed existing discharge, based on average land cover condition, *where after-development imperviousness exceeds average land cover condition.*
Grandfathering: Water Quality Criteria

3. Where the existing imperviousness is greater than the average land cover condition (i.e., a redevelopment project), existing (pre-development) pollution discharge may not exceed EITHER (i) pre-development discharge LESS 10%, OR (ii) pollutant discharge based on average land cover condition, WHICHEVER IS GREATER.

4. Where the existing impervious cover is served by existing BMP(s), after-development pollutant discharge may not exceed pre-development discharge, based on existing % impervious cover.
Grandfathering: Water Quality Criteria

- **Technology Criteria**: After-development impervious cover runoff must be treated by appropriate BMP for size of impervious area (% impervious cover), based on Table in regulations.

- Selected BMP must perform at target pollution removal level shown in Table or in BMP Table associated with new development water quality criteria (i.e., developer can choose which set of BMPs to use).
Grandfathering:
Water Quality Criteria

<table>
<thead>
<tr>
<th>Water Quality BMP*</th>
<th>Target Phosphorus Removal Efficiency</th>
<th>Percent Impervious Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetated filter strip</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Grassed swale</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Constructed wetlands</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Extended detention (2 x WQ Vol)</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Retention basin I (3 x WQ Vol)</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>Bioretention basin</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Bioretention filter</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Extended detention-enhanced</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Retention basin II (4 x WQ Vol)</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Infiltration (1 x WQ Vol)</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Sand filter</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Infiltration (2 x WQ Vol)</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Retention basin III (4 x WQ Vol with aquatic bench)</td>
<td>65%</td>
<td>67-100%</td>
</tr>
</tbody>
</table>

*Innovative or alternate BMPs not included in this table may be allowed at the discretion of the local program administrator or DCR. Innovative or alternate BMPs not included in this table that target appropriate nonpoint source pollution other than phosphorus may be allowed at the discretion of the local program administrator or DCR.
Grandfathered Projects: Stream Channel Protection

- Stream channel protection for grandfathered projects reflect *current* reg requirements:
  - Compliance with MS-19 (4VAC50-30-40) of the Erosion and Sediment Control Regulations pertaining to receiving channel protection.
  - Local discretion to require 24-hour detention of the 1-year 24-hour storm rather than require reduction of the after-development 2-year peak flow (current requirement).
  - Local discretion to apply alternative channel protection criteria more specific to local conditions.
Grandfathered Projects: Flood Protection

• Flood protection for grandfathered projects also reflect *current* reg requirements:
  
  o Reduce peak runoff rate of post-development 10-year 24-hour storm to pre-development rate.
  o Local discretion to apply alternative design criteria more specific to local conditions.
  o Linear development projects not required to provide post-development flood control except in accordance with a regional/watershed SWM plan.
SWM Reg: Part 3 (4VAC50-60-102)
Local Program Requirements

• Establishes minimum criteria and local ordinance requirements necessary for a locality to be approved by VA Soil and Water Conservation Board to be as a “Stormwater Program Administrative Authority” (SPAA)

• This information is critical for local officials and their consultants in developing local SWM ordinances and administering local programs.
SWM Program Administrative Authority Criteria (4 VAC 50-60-100 through 106)

• The local program must include an ordinance that provides for the following:
  o Identifies the authorities that will issue coverage under the VSMP General Permit approval authority and Ches Bay Preservation Act authority, review and approve site plans, and enforce the ordinance.
  o Local program must require compliance with Part 2 (technical criteria) in state regulations and must be at least as stringent as provisions of the VSMP-CGP.
Local Administrative Authority

- Local ordinance options:
  - May require a reasonable performance bond or other surety (this is a recommended practice).
  - May incorporate qualifying state, tribal, or local erosion and sediment control program requirements by reference.
- Establishes site plan review procedures.
- Requires long-term maintenance of permanent SWM BMPs and facilities.
- Requires routine inspections of construction projects and installation of permanent BMPs.
Local Ordinance and Program

- Establishes enforcement procedures, penalties, and appeal procedures.
- Establishes procedures/policies for long-term inspection/maintenance of installed SWM BMPs.
- Provides for the granting of exceptions to compliance criteria under specified conditions.

• Qualifying local program must keep appropriate records and provide reports to DCR regarding administration and implementation of the program.
Local Program Requirements
(4 VAC 50-60-144 through 150)

• Requires DCR to periodically evaluate local programs to ensure they are being administered properly,

• Establishes the Board’s procedures for considering a local program to be a “Qualified Local Program.”

• Understanding these procedures can help a locality assure it qualifies and remains in good standing with DCR and the Board.
SWM Reg: Part 4 (4VAC50-60-160) Requirements for State Agency Projects

• State agency projects must meet same requirements as private projects, except that they submit their plans to DCR for review and approval and receive General Permit authorization directly from DCR.

• Large agencies with lots of construction projects (e.g., VDOT, universities, the Department of Corrections, etc.) may submit annual SWM specifications to DCR for approval, in order to administer their own SWM programs.
State Agency Requirements (continued)

- Subject to *annually approved* SWM specifications, agency can administer its own SWM requirements as if it were a local program (reviewing its own plans, inspecting its own construction sites, ensuring long-term maintenance of SWM practices, etc.).
- The SWM Act also authorizes certain utilities (e.g., electric and gas utilities, etc.) and railroad companies to submit annual SWM specifications to DCR, for in-house oversight of transmission lines and track construction.
SWM Permit Fees

• Law requires program to be funded by permit fees
• This is *not* an unfunded mandate. Majority of fee goes to local government to support local program
• Fees cover both local program operation and state oversight
• Locality Administered Program: Locality gets 72% (for local program administration), and DCR gets 28% (for state-level administration and local program oversight)
• *A locality may increase fees if it can convince Board the increase is necessary to effectively administer local program* – if so, added amount not split with DCR
• If DCR administers the local program, DCR gets 100% of the permit fee
Construction Permit Fees (Part 13)

Currently, if no local program or DCR administered program for locality where construction will occur:

• 2,500 sq. ft < 1 acre = $ 200
• ≥ 1 acre < 5 acres = $ 300
• ≥ 5 acres = $ 500
• Individual Constr. Permit = $15,000
General Construction Permit Fees

Once local programs are approved and in operation, the following fees will apply:

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,500 sqft &lt; 0.5 acre</td>
<td>$290</td>
<td>$50</td>
</tr>
<tr>
<td>Comm. POD &lt; 1 acre</td>
<td>$290</td>
<td>$50</td>
</tr>
<tr>
<td>≥ 0.5 acre &lt; 1 acre</td>
<td>$1,500</td>
<td>$200</td>
</tr>
<tr>
<td>≥ 1 acre &lt; 5 acres</td>
<td>$2,700</td>
<td>$400</td>
</tr>
<tr>
<td>≥ 5 acres &lt; 10 acres</td>
<td>$3,400</td>
<td>$500</td>
</tr>
<tr>
<td>≥ 10 acres &lt; 50 acres</td>
<td>$4,500</td>
<td>$650</td>
</tr>
<tr>
<td>≥ 50 acres &lt; 100 acres</td>
<td>$6,100</td>
<td>$900</td>
</tr>
<tr>
<td>≥ 100 acres</td>
<td>$9,600</td>
<td>$1,400</td>
</tr>
<tr>
<td>Individual Permit</td>
<td>$15,000</td>
<td>$3,000</td>
</tr>
</tbody>
</table>
Remainder of Regulations

Entire *current* SWM regulation can be obtained from DCR’s website, at:


OR the “official” version at the Virginia Legislative Information System website, at:

http://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+4VAC50-60
The Virginia Soil and Water Conservation Commission is currently working on regulatory revisions to both its Stormwater Management Regulations Parts I, II, and III (4 VAC 50-20) and its Stormwater Management Regulations Parts I, II, and III (4 VAC 50-60).

Impounding Structure Regulations

Meeting on July 15, 2010, the Board considered two final regulatory actions amending the Board’s Impounding Structure Regulations. One was a final exempt action that incorporates language from legislation (two bills) passed during the 2010 Session for which the Board has no discretion. The other was a final fast-track action to provide for temporary grandfathering of certain dams from the September 2008 regulatory requirement changes. For additional information concerning the Board meeting and specifics on the regulatory actions please click here.

Pictures from the first RAP meeting
QUESTIONS?
SWMESquestions@dcr.virginia.gov

For additional information on the regulatory process go to:
or contact the policy office at:
regcord@dcr.virginia.gov