

DCR's perspective on the proposed VSMP regulations

A brief overview

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Stormwater Management Pre-2004

Administered by three state agencies and four citizen boards

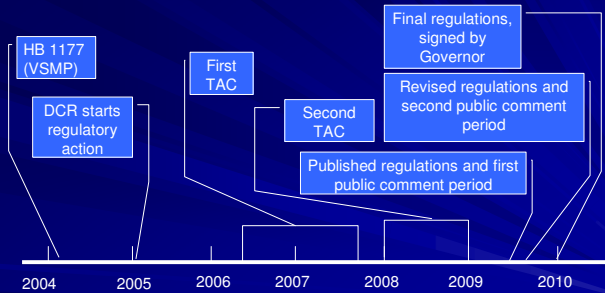
- DCR, DEQ, and Chesapeake Bay Local Assistance Department (formerly)
- Soil and Water Conservation Board
- Board of Conservation and Recreation
- Chesapeake Bay Local Assistance Board
- State Water Control Board

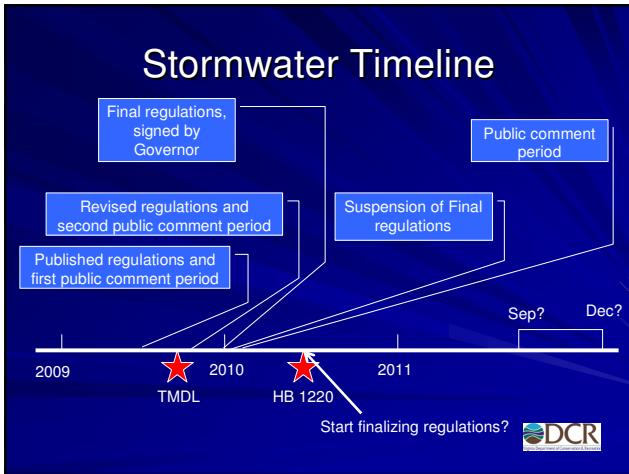
House Bill 1177 (2004) created the VA Stormwater Management Program (VSMP), which consolidated stormwater management in DCR and the Virginia Soil and Water Conservation Board, with the concept of ultimately authorizing localities to administer construction stormwater management programs.

- Chesapeake Bay Preservation Act and MS4 localities required to adopt; others may opt-in or DCR will operate.



Stormwater Timeline





- ## What do amendments to the regulations need to address?
- **Water quality improvements:** Addressing stormwater management is a key component (along with impacts from agriculture, point sources, and air deposition) to improving water quality in Virginia's rivers, streams, lakes, and Chesapeake Bay.
 - **Water quantity:** Today's standards still result in significant flooding and channel erosion.
 - **Operation of a local stormwater management program:** Operated by a locality ("qualifying local program") or DCR.
 - **Fee levels:** That will provide sufficient funding for local stormwater management programs and DCR oversight.
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Water Quality Standard

■ **What we do now**

- Total phosphorus (TP) as keystone
- Most sites meet average land cover condition (0.45 lbs/acre/year)
- Redevelopment requires 10% phosphorus reduction

■ **What was proposed**

- TP basis for compliance
- 0.45 lbs/acre/year for Bay watershed but subject to change based on Chesapeake Bay TMDL
- 0.45 lbs/acre/year for non-Bay areas and sites <1 acre in Bay watershed
- Redevelopment 10% P reduction on sites <1 acre, 20% P reduction on sites > 1 acre
- UDA qualified local programs must establish standards between 0.28 and 0.45

- **What is proposed**
- 4 point of discharge options + 1% rule
 - Discharge to man-made system
 - Discharge to restored system
 - Discharge to stable natural system
 - Energy (developed) ≤ Energy (pre-development)
 - Discharge to unstable natural system**
 - Energy (developed) ≤ Energy (Good pasture) (1-yr storm)
 - Q₁₀ post to pre (Good pasture)
 - Exceptions for <5 acres on prior developed land & <1 acre for new development
 - Post-development erosion and flooding must be less than pre-development
 - Local equivalent program
 - Analysis of sheet flow
 - Align MS-19 (in future)
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Items that were included

- Stormwater BMP Choices
- Treating Impervious Cover & Managed Turf Areas
- Offsite compliance
- Inspections/Maintenance
- Grandfathering
- Spreadsheet Compliance Tool
- Establishment of Locality-Administered Stormwater Management Programs (Section III)
- Revision to the Stormwater Fees (Part XIII)



New Stormwater BMP Paradigm

- How do we address the current stormwater regulations?
 - Blue Book method unless locality is more restrictive
- How should we address the stormwater regulations in the future?
 - Do not: design a site and try to (retro-)fit/shoehorn stormwater management in after-the-fact
 - Use site design, conventional BMPs (revised Blue Book), BMP Clearinghouse, and Runoff Reduction Techniques
 - Use of “treatment train”
 - BMP performance = Runoff reduction + Pollutant removal

Runoff Reduction Technique	Runoff Reduction (%)	Pollutant Removal (%)
Grass	100	100
Grass with 1" mulch	95	95
Grass with 2" mulch	90	90
Grass with 3" mulch	85	85
Grass with 4" mulch	80	80
Grass with 5" mulch	75	75
Grass with 6" mulch	70	70
Grass with 7" mulch	65	65
Grass with 8" mulch	60	60
Grass with 9" mulch	55	55
Grass with 10" mulch	50	50
Grass with 11" mulch	45	45
Grass with 12" mulch	40	40
Grass with 13" mulch	35	35
Grass with 14" mulch	30	30
Grass with 15" mulch	25	25
Grass with 16" mulch	20	20
Grass with 17" mulch	15	15
Grass with 18" mulch	10	10
Grass with 19" mulch	5	5
Grass with 20" mulch	0	0



New Stormwater BMP Paradigm

Category	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Site Name																										
Post-Development Project & Land Cover Information																										
Land Cover	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Runoff Reduction	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5	0					
Pollutant Removal	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5	0					

- What is proposed
 - Runoff Reduction
 - Use of all the new and standard tools (including spreadsheet tool).
 - Localities have other options if they can prove to the Board that these tools are equivalent.
 - Be innovative!



Road to Final Regulations

- HB 1220 requires that new regulations become effective 200 days after publication of Final TMDL or no later than Dec. 1 2011
- TMDL will require limits on Nitrogen and Sediment in addition to Phosphorus
- DCR may be require to adjust the Regulations and Run-off Reduction Spreadsheet to address TMDL requirements (new TAC?) including Nitrogen and sediment reduction requirements.



For More Info:

Visit the DCR website:

See the Stormwater Parts 1,2,3, and 13 tab
at: <http://www.dcr.virginia.gov/lawregs.shtml>

or contact

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