

Metro WMO Volume Control Comparison

Credit goes to Capital Region WD

A historical perspective

“History by itself should not dictate how we do things today but at a minimum it should inform our decisions”

Doug Thomas

A Quiz

“The objective of this standard is to control the rate and volume of stormwater runoff so that surface and groundwater quantity and quality are protected, soil erosion is minimized, flooding potential is reduced, and thermal impacts are reduced.”

Where does this come from ??

Another Clue

“ It is recommended that the watershed districts and watershed management organizations in Washington County consider adopting the following volume control stands to provide uniformity in the regulatory process.”

The Answer

Washington County Water Consortium
Incorporating Groundwater Protection
Into Watershed District Rules
December 2004

The Report

- Standard was a pre-post development runoff volume using 2.8 event (2 yr 24 hr)
- Activity thresholds (8 of them)
- Standardized RCN's
- Exceptions/Exclusions



Capital Region WD Volume Control Standards Comparison

Metro Watershed Volume Control Standards 1/11/11 DRAFT

Watershed Organization	Method*	Volume Standard		Permit Threshold	Exceptions
Bassett Creek WMO	Ruler	0.5 inch for infiltration basins, 1-inch for filtration or bioretention		0.5 acres for new development 1.0 acre for roads 5 acres for re-development	Mill and overlay
Browns Creek WD	Match	No increase in the volume of runoff from the 2-year, 24 hour storm, and infiltrate or retain the 2-year, 24 hour event under the developed condition		4 lot subdivision 1 acre of new impervious or 5% of total site new impervious 5,000 sf new impervious surface appurtenant to existing 5,000 sf near draining to GW resource	
Capitol Region WD	Ruler	One-inch of volume reduction over the impervious surfaces		1 acre of disturbance 10,000 sf disturbance adjacent to a water body	Bridge Decks
Carnelian-Marine-St. Croix WD	Match	No increase in the volume of runoff from the 2-year, 24 hour storm, and infiltrate or retain the 2-year, 24 hour event under the developed condition		4 lot subdivision 1 acre of new impervious or 5% of total site new impervious 5,000 sf of disturbance within 1,000 ft of water	Only net increase for roads
Comfort Lake-forest Lake WD	Match	No increase in the runoff volume for the 2 year, 24 hour rainfall		4 lot subdivision (3 near water) 1 acre of new impervious or 25% of total site new impervious (5% near water)	Only net increase for roads
Coon Creek WD	Ruler	infiltrate one inch runoff from site		1 acre of disturbance Adjacent to water bodies	
Lower Minnesota WD	NA	NA		NA	NA
Minnehaha Creek WD	Ruler	1-Inch (DRAFT)		DRAFT	DRAFT
Mississippi WMO	Ruler	1-Inch (DRAFT)		DRAFT	DRAFT
Nine Mile Creek WD	Ruler	Retain 1 inch runoff from all impervious on the site		50 cubic yards of disturbance 5,000 sf land disturbance 3 lot subdivision	Single Family Homes Linear projects w/less than 1 acre new impervious
Prior Lake-Spring Lake WD	Ruler	0.5-inch runoff from impervious		1 acre of land disturbance	less than one acre impervious
Ramsey-Washington Metro WD	Ruler	One-inch of volume reduction over the impervious surfaces		1 acre of disturbance 10,000 sf disturbance adjacent to a water body	Bridge Decks
Rice Creek WD	Match	Retain the 2.8-inch over the contributing drainage area. Retain 0.8 inch runoff from impervious surfaces that are not a net increase		1 acre sites 5 acre single family residential sites	linear projects with no net impervious increase
Riley-Purgatory-Bluff Creek WD	NA	NA		NA	NA
Shingle Creek WMO	Ruler	Abstract 0.5-inch over the impervious surface		15 acres for single family housing 5 acres for all other land uses	
South Washington WD	Match or Ruler	Maintain the average annual pre-development infiltration capacity	One-inch of infiltration over the impervious surface of the site	1 acre of land disturbance	Re-development Linear projects
Valley Branch WD	Both	No increase in the volume of runoff from the 1 inch 24 hour storm, or infiltrate the first 0.5 inches of runoff from the new impervious surfaces (whichever is greater)	No increase in the volume of runoff for the 1-year and 2-year 24 hour events, and infiltrate the first 1-inch of runoff from the new impervious surfaces	1 acre of land disturbance 6,000 sf of new impervious creation	Mill and overlay

* "Ruler"= rainfall depth over impervious surface

"Match"= maintain pre-development runoff volume for the proposed condition

What's Next

- Stay tuned to the MIDS project and be pro-active in responding to any recommendations.
 - For example nothing less than 1”
- June 2011 MS4 permit – word has it that it will include volume control which is being driven by EPA.
- Legislative actions
- Further discussion on standard and the thresholds by the Consortium???