

2016 DSSR RAC Technical Subcommittee

- Non-DURMM Approach
- New tools & methods for high groundwater and poor infiltrating sites.
- New methods where volume reduction isn't needed.

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Technical Subcommittee

Recommendations

- USDA SCS runoff equation with initial abstraction ratio adj.
- Provide tabular surface recharge BMP R_{Pv} treatment.
- R_{Pv} compliance via engineered steady flow, slow release (“ephemeral wet pond”).
- Avg groundwater (seasonal high) for ephemeral wet pond, ephemeral wetland and gravel wetland BMPs.
- WQ treatment (TMDL) volumetric equivalents with tidal discharge.

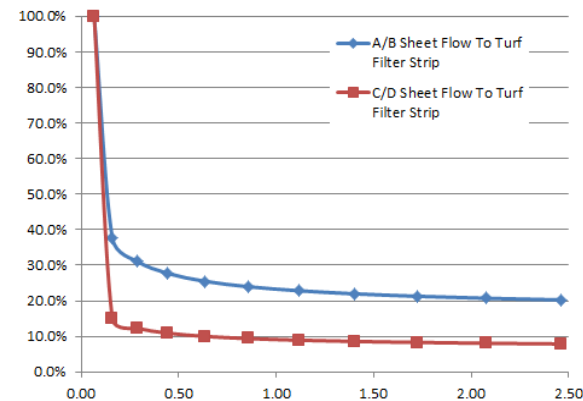
Meeting DSSR Without DURMM

- DURMM V2 Method
 - Utilizes a runoff generation equation developed by DNREC (RPv).
- USDA Soil Conservation Service (SCS) Method
 - Adjust Ia/S ratio to reflect small watersheds and emulate DURMM calculations.
 - Mirror internal DURMM pre / post analysis in commonly used hydrologic software programs.

Meeting DSSR Without DURMM

- Surface Recharge BMP Rpv Performance
 - Applies to: Bioswales, grassed channels, sheet flow to BMP, vegetated roofs, & rooftop disconnection.
 - DURMM utilizes the inches per acre BMP load to determine BMP performance.
 - Create tables for use outside of DURMM

Rpv Filter Strip Performance		
Runoff Volume (in/acre)	BMP performance	
	HSG A/B	HSG C/D
> 1 in / acre	20%	8%
0.5 - 0.99 in / acre	25%	10%
0.00 - 0.5 in / acre	30%	12%



Shallow Groundwater & Poor Infiltration Sites

- Ephemeral wet pond, ephemeral wetland and gravel wetland BMPs
- Akin to natural condition ephemeral pools.
- Slow steady release of RPv > 48 hours (“base flow”)
- Average groundwater (~~seasonal high~~)
- 50% RPv credit for volume released as “base flow”

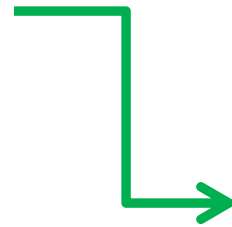
Volumetric Equivalents for WQ BMPs

- For projects with tidal discharge, volume reduction is less important than ensuring water quality.
 - Utilize WQ BMPs in lieu of 0% net effective impervious
 - Treat to TMDL PCS targets or WQ baseline targets where no PCS has been implemented

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Tech. Comm. Consensus



Implementation?