

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0

2011 BMP Standards and Specifications		2013 Draft BMP Standards and Specifications			
Project Name:	12917 Percheron Lane - Existing Condition	CLEAR ALL	data input cells		
Date:	Jan 29th 2024		constant values		
Linear Development Project?	No		calculation cells		
Site Information			final results		
Post-Development Project (Treatment Volume and Loads)					
Enter Total Disturbed Area (acres) →		0.83	Check: BMP Design Specifications met?	2011 Storm & Seeps	
Maximum reduction required: The site's net increase in impervious cover (acres) is:		0.01325473	Linear project?	No	
Post-Development TP Load Reduction for Site (lb/yr):		0.10	Land cover areas entered correctly?	✓	
			Total disturbed area entered?	✓	
Pre-Development Land Cover (acres)					
	A Soils	B Soils	C Soils	D Soils	Stonks
Forest/Open Space (acres) - undisturbed, wooded/developed areas or agricultural				0.21	0.21
Managed Turf (acres) - disturbed, graded for aesthetic cover and in use as amenity/entertainment				0.44	0.44
Impervious Cover (acres)				0.18	0.18
				0.83	
Post-Development Land Cover (acres)					
	A Soils	B Soils	C Soils	D Soils	Stonks
Forest/Open Space (acres) - undisturbed, wooded/developed areas or agricultural				0.21	0.21
Managed Turf (acres) - disturbed, graded for aesthetic cover and in use as amenity/entertainment				0.42	0.42
Impervious Cover (acres)				0.20	0.20
Area Check	OK	OK	OK	OK	0.83
*Forest/Open Space areas must be protected in accordance with the Virginia Runoff Reduction Method					
Constants					
Runoff Coefficients (Rv)					
Forest/Open Space	0.05	Forest/Open Space	0.05	B Soils	0.04
Managed Turf	0.25	Managed Turf	0.25	C Soils	0.05
Impervious Cover	0.41	Impervious Cover	0.41	D Soils	0.05
	0.00				
LAND COVER SUMMARY - PRE-REDEVELOPMENT					
Land Cover Summary-Pre			Land Cover Summary-Post/Final		
Pre-Development	Final	Adjusted	Post-Development	Final	Adjusted
Forest/Open Space (acres)	0.21	0.21	Forest/Open Space - Cont'd (acres)	0.21	0.21
Weighted Referred	0.05	0.05	Managed Turf (acres)	0.42	0.42
% Forest	25%	25%	% Forest	25%	25%
Managed Turf (acres)	0.44	0.42	Managed Turf Cover (acres)	0.42	0.42
Weighted Referred	0.25	0.20	Weighted Referred	0.25	0.20
% Managed Turf	52%	52%	% Managed Turf	52%	52%
Impervious Cover (acres)	0.18	0.18	Impervious Cover (acres)	0.20	0.18
Referred	0.05	0.05	Referred	0.05	0.05
% Impervious	22%	22%	% Impervious	22%	22%
Total Site Area (acres)	0.83	0.81	Total ReDev. Site Area (acres)	0.81	0.81
Site Rv	0.35	0.36	ReDev Site Rv	0.37	0.36
Treatment Volume and Nutrient Load					
Pre-Development Treatment Volume (acre-ft)			Post-Development Treatment Volume (acre-ft)		
Pre-Development Treatment Volume (acre-ft)	0.0244	0.0241	Post-Development Treatment Volume (acre-ft)	0.0241	0.0215
Pre-Development Treatment Volume (cubic feet)	1,065	1,048	Post-Development Treatment Volume (cubic feet)	1,048	63
Pre-Development TP Load (lb/yr)	0.67	0.66	Post-Development TP Load (lb/yr)	0.66	0.04
Pre-Development TP Load per acre (lb/acre/yr)	0.81	0.81	Post-Development TP Load per acre (lb/acre/yr)	0.81	
Referred TP Load (lb/yr)		0.33	Referred TP Load (lb/yr)		
*Referred TP Load (lb/yr) is applied to pre-development area excluding pervious land provided for new impervious cover					
Adjusted Land Cover Summary					
Adjusted land cover summary: The ReDevelopment land cover minus pervious land cover (Forest/Open Space or Managed Turf) acreage provided for new impervious cover.					
Adjusted land acreage is consistent with Post-Development acreage (minus acreage of new impervious cover).					
Volume 1 shows land reduction requirement for new impervious cover (based on new development load limit: 0.41 lb/acre/year).					
Post-Development Requirement for Site Area					
TP Load Reduction Required (lb/yr)		0.10			
Nitrogen Loads (Informational Purposes Only)					
Pre-Development TN Load (lb/yr)	4.79	Final Post-Development TN Load (Post-Development & New Impervious) (lb/yr)	5.00		