

HENRICO COUNTY ENVIRONMENTAL COMPLIANCE MANUAL

WORKSHEET 14.07 – COMPLIANCE

Determine the pollutant removal requirement (RR) as calculated on the appropriate development situation worksheet (Worksheet 3.2, Worksheet 3.3, Worksheet 3.4, or Worksheet 3.5).

$$\begin{aligned}
 \text{RR} &= \text{pollutant removal requirement} \\
 &= \underline{\hspace{2cm}} \text{ lbs/yr}
 \end{aligned}$$

Calculate the pollutant loading to the BMP ($L_{\text{ON-SITE}}$) from on-site areas.

$$\begin{aligned}
 A_{\text{ON-SITE}} &= \text{the contributing on-site drainage area to the BMP} \\
 &= \underline{\hspace{2cm}} \text{ acres} \\
 A_{\text{ON-SITE}} &= \text{the amount of on-site impervious cover in the contributing} \\
 &\quad \text{drainage area} \\
 &= \underline{\hspace{2cm}} \text{ acres} \\
 I_{\text{ON-SITE}} &= \text{the percentage of on-site impervious cover for the contributing} \\
 &\quad \text{drainage area to the BMP.} \\
 &= (A_{\text{ON-SITE}} / A_{\text{ON-SITE}}) \times 100 \\
 &= (\underline{\hspace{1cm}} / \underline{\hspace{1cm}}) \times 100 \\
 &= \underline{\hspace{2cm}} \% \\
 L_{\text{ON-SITE}} &= \text{the phosphorus load to the BMP.} \\
 L_{\text{ON-SITE}} &= [0.05 + (0.009 \times I_{\text{ON-SITE}})] \times 2.28 \times A_{\text{ON-SITE}} \\
 &= [0.05 + (0.009 \times \underline{\hspace{1cm}})] \times 2.28 \times \underline{\hspace{1cm}} \\
 &= \underline{\hspace{2cm}} \text{ pounds per year}
 \end{aligned}$$

Calculate the pollutant loading to the BMP ($L_{\text{OFF-SITE}}$) from off-site areas.

$$\begin{aligned}
 A_{\text{OFF-SITE}} &= \text{the contributing off-site drainage area to the BMP} \\
 &= \underline{\hspace{2cm}} \text{ acres} \\
 I_{\text{OFF-SITE}} &= 16\% \quad (16\% \text{ shall be used for all off-site drainage areas}) \\
 L_{\text{OFF-SITE}} &= \text{the off-site phosphorus load to the BMP.} \\
 &= [0.05 + (0.009 \times I_{\text{OFF-SITE}})] \times 2.28 \times A_{\text{OFF-SITE}} \\
 &= [0.05 + (0.009 \times 16)] \times 2.28 \times \underline{\hspace{1cm}} \\
 &= \underline{\hspace{2cm}} \text{ pounds per year}
 \end{aligned}$$

Calculate the total pollutant loading to the BMP (L_{TOTAL}).

$$\begin{aligned}
 L_{\text{TOTAL}} &= L_{\text{ON-SITE}} + L_{\text{OFF-SITE}} \\
 &= \underline{\hspace{1cm}} + \underline{\hspace{1cm}} \\
 &= \underline{\hspace{2cm}} \text{ pounds per year}
 \end{aligned}$$

Calculate the total pollutant load removed by the proposed BMP(s) ($L_{\text{REMOVED BY BMP}}$). Acceptable BMP types and associated removal efficiencies are listed in Section 3.6.1 of this Manual.

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Selected BMP Type	Removal Efficiency	X	L _{TOTAL}	=	L _{REMOVED BY BMP(S)} (lbs/yr)
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
TOTAL L _{REMOVED BY BMP(S)}					

For BMPs in series, the L_{TOTAL} treated by the second basin is the L_{TOTAL} from the first basin minus the load removed by the first BMP. When the overall removal efficiency for BMPs in series exceeds 65%, the BMPs will be treated as one BMP with a removal efficiency of 65% on the compliance worksheet.

Calculate the pollutant load removed by the Stream Protection Area (L_{REMOVED BY SPA}) provided. In order to receive pollutant removal credit for the Stream Protection Area (SPA), the SPA must be forested in accordance with Minimum Standard 14.10 and energy dissipators (EDs) provided in accordance with Minimum Standard 14.01.

Stream Protection Area	Linear feet provided	X	Pollutant Removal (lb/yr/ft)	=	L _{REMOVED BY SPA} (lbs/yr)
		X	0.00029	=	

Calculate the pollutant load removed by the energy dissipators (L_{REMOVED BY ED}) provided. In order to receive pollutant removal credit for the energy dissipators (EDs), the SPA must be forested in accordance with Minimum Standard 14.10 and energy dissipators provided in accordance with Minimum Standard 14.01.

Energy Dissipators	Number of Energy Dissipators	X	Pollutant Removal (lb/yr/ED)	=	L _{REMOVED BY ED} (lbs/yr)
		X	0.10	=	

Calculate the total pollutant load removal achieved by the BMP(s), SPA, and EDs (L_{REMOVED}).

$$\begin{aligned}
 L_{REMOVED} &= L_{REMOVED BY BMP(S)} + L_{REMOVED BY SPA} + L_{REMOVED BY ED} \\
 &= \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \\
 &= \underline{\hspace{2cm}} \text{ lbs/yr}
 \end{aligned}$$

If the total pollutant load removed (L_{REMOVED}) is greater than or equal to the pollutant removal requirement (RR), the proposed project complies with the pollutant load reduction criteria.

$$\begin{aligned}
 L_{REMOVED} &\geq RR \\
 \underline{\hspace{2cm}} &\geq \underline{\hspace{2cm}}
 \end{aligned}$$

TECHNICAL CRITERIA FOR GRANDFATHERED AND PREVIOUSLY PERMITTED PROJECTS