

By virtue of this seal and signature, all supporting documents included in this package are accurate and support the design presented herein.



## Virginia Runoff Reduction Method New Development Worksheet - v2.8 - June 2014

**Site Data Summary**

Total Rainfall = 43 inches

**Site Land Cover Summary**

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	8.86	4.89	7.38	21.13	99.72
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.06	0.00	0.00	0.06	0.28
					21.19	100.00

Site Rv	0.04
Post Development Treatment Volume (ft3)	3221
Post Development TP Load (lb/yr)	2.02
Post Development TN Load (lb/yr)	14.48
Total TP Load Reduction Required (lb/yr)	-6.66

Total Runoff Volume Reduction (ft <sup>3</sup> )	0
Total TP Load Reduction Achieved (lb/yr)	0
Total TN Load Reduction Achieved (lb/yr)	0.00
Adjusted Post Development TP Load (lb/yr)	2.02
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

**Drainage Area Summary**

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
						0.00

**Drainage Area Compliance Summary**

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00
TN Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00

### Drainage Area A Summary

#### Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

#### BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

### Drainage Area B Summary

#### Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

#### BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Drainage Area C Summary****Land Cover Summary**

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

**BMP Selections**

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

### Drainage Area D Summary

**Land Cover Summary**

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

**BMP Selections**

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Drainage Area E Summary**

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Channel and Flood Protection**

	Weighted CN	1-year storm Adjusted CN	2-year storm Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		0.00	0.00	0.00
D.A. A CN	0	100	100	100
D.A. B CN	0	100	100	100
D.A. C CN	0	100	100	100
D.A. D CN	0	100	100	100
D.A. E CN	0	100	100	100



Virginia Runoff Reduction Method New Development Worksheet - v2.8 - June 2014

**Site Data Summary**

Total Rainfall = 43 inches

**Site Land Cover Summary**

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	1.06	25.65	0.23	1.67	28.62	99.62
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.11	0.00	0.00	0.11	0.38
					28.73	100.00

Site Rv	0.03
Post Development Treatment Volume (ft3)	3587
Post Development TP Load (lb/yr)	2.25
Post Development TN Load (lb/yr)	16.12
Total TP Load Reduction Required (lb/yr)	-9.52

Total Runoff Volume Reduction (ft <sup>3</sup> )	0
Total TP Load Reduction Achieved (lb/yr)	0
Total TN Load Reduction Achieved (lb/yr)	0.00
Adjusted Post Development TP Load (lb/yr)	2.25
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

**Drainage Area Summary**

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
						0.00

**Drainage Area Compliance Summary**

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00
TN Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00

### Drainage Area A Summary

#### Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

#### BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

### Drainage Area B Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Drainage Area C Summary****Land Cover Summary**

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

**BMP Selections**

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

### Drainage Area D Summary

#### Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

#### BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Drainage Area E Summary**

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Channel and Flood Protection**

	Weighted CN	1-year storm Adjusted CN	2-year storm Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		0.00	0.00	0.00
D.A. A CN	0	100	100	100
D.A. B CN	0	100	100	100
D.A. C CN	0	100	100	100
D.A. D CN	0	100	100	100
D.A. E CN	0	100	100	100

## Virginia Runoff Reduction Method New Development Worksheet - v2.8 - June 2014

**Site Data Summary**

Total Rainfall = 43 inches

**Site Land Cover Summary**

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.23	0.00	0.00	0.23	100.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.23	100.00

Site Rv	0.03
Post Development Treatment Volume (ft <sup>3</sup> )	25
Post Development TP Load (lb/yr)	0.02
Post Development TN Load (lb/yr)	0.11
Total TP Load Reduction Required (lb/yr)	-0.08

Total Runoff Volume Reduction (ft <sup>3</sup> )	0
Total TP Load Reduction Achieved (lb/yr)	0
Total TN Load Reduction Achieved (lb/yr)	0.00
Adjusted Post Development TP Load (lb/yr)	0.02
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

**Drainage Area Summary**

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
						0.00

**Drainage Area Compliance Summary**

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00
TN Load Red. (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00



### Drainage Area A Summary

#### Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

#### BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Drainage Area B Summary**

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Drainage Area C Summary****Land Cover Summary**

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

**BMP Selections**

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Drainage Area D Summary**

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Drainage Area E Summary**

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious (acres)	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	

BMP Selections

Practice	Credit Area (acres)	Downstream Practice
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. A (lb/yr)	0.00

**Channel and Flood Protection**

	Weighted CN	1-year storm Adjusted CN	2-year storm Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		0.00	0.00	0.00
D.A. A CN	0	100	100	100
D.A. B CN	0	100	100	100
D.A. C CN	0	100	100	100
D.A. D CN	0	100	100	100
D.A. E CN	0	100	100	100