

James City County Perennial Stream Protocol (5/15/09)					
Date:	Project:				
Evaluator:	Evaluation Point:				
	Indicator Type				
A. Geomorphology (Subtotal =)		Absent	Weak	Moderate	Strong
1. Continuous bed and bank *	Primary	0	1	2	3
2. Sinuosity	Secondary	0	0.5	1	1.5
3. In channel structure: riffle-pool sequence	Primary	0	1	2	3
4. Soil texture/depth of channel downcutting *	Secondary	0	0.5	1	1.5
5. Degree of valley development	Primary	0	1	2	3
6. Floodplain/in-channel bench	Secondary	0	0.5	1	1.5
7. Recent alluvial deposits *	Secondary	0	0.5	1	1.5
B. Hydrology (Subtotal =)					
8. Groundwater discharge	Secondary	0	0.5	1	1.5
9. Leaf litter (inverse relationship)	Secondary	1.5	1	0.5	0
10. Flowing water in channel	Primary	0	1	2	3
11. Yorktown Formation	Primary	0	1	2	3
C. Biology (Subtotal =)					
12. Macroinvertebrates	Primary	0	1	2	3
13. Gilled amphibians	Secondary	0	0.5	1	1.5
14. Fish	Secondary	0	0.5	1	1.5
* This metric must be evaluated with consideration of upstream conditions, primarily check for presence of an upstream stormwater discharge into the reach					
Total Points					
Is the Stream Perennial? YES NO					
Reason:					
Additional Factors on which Determination is Based:					
Soil mottling					
Channel geometry, manmade modifications					
Offsite stormflow inputs					
Periphyton					
Grade control					
Primary Indicator is scored from 0 to 3 points, Secondary Indicator is scored from 0 to 1.5 points unless inverse relationship. If inverse relationship, Secondary Indicator is scored at 1.5 for absent down to 0 points for strong.					