



## Memorandum

**Date:** April 30, 2019

**To:** Maryland's Municipal Separate Storm Sewer System (MS4) Community

**From:** Maryland Department of the Environment (Department), Sediment, Stormwater, and Dam Safety Program

**Re:** Stream Restoration Crediting Clarification for MS4 Permitting Purposes

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### Introduction

The Department recognizes and accepts the Chesapeake Bay Program's (CBP) Urban Stormwater Work Group's revised stream restoration pollutant load reduction rates, *Recommendations of the Expert Panel to Define Removal Rates for Individual Stream Restoration Projects, Schueler and Stack, 2014*, for use in crediting projects to support MS4 permit restoration requirements. The Department's *Municipal Separate Storm Sewer System Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, (Guidance), August 2014*, provided instructions for transitioning to these pollutant load reduction rates for total maximum daily load (TMDL) analysis. More recently in December 2017 and October 2018, the Department provided guidance on how to use these revised pollutant load reduction rates for calculating equivalent impervious acres toward completing MS4 permit restoration requirements. This memorandum provides further clarification on the use of pollutant load reduction planning rates and individual site monitoring for calculating MS4 equivalent impervious acre permit restoration credit. These clarifications are for use in coordination with the CBP Phase 5 model calibration and applicable to Maryland's MS4 jurisdictions.

### Stream Restoration Pollutant Load Reduction Planning Rates

In *Schueler and Stack, 2014*, the CBP established pollutant load reduction planning rates for stream restoration projects for use in the CBP's Phase 5 watershed model. These planning rates may be used by Maryland's MS4 community for calculating MS4 equivalent impervious acre permit restoration credit. The MS4 equivalent impervious acre permit restoration credit may be applied uncapped in relation to the actual impervious acres in the stream restoration project's watershed. Table 1 below provides the CBP pollutant load reduction planning rates for stream restoration projects and the equivalent impervious acre credit in accordance with the Department's *Guidance, August 2014*.

**Table 1. Planning Rates for Stream Restoration and Impervious Acre Equivalents**

Geography	TN <sup>1</sup> (lbs./ft.)	TP <sup>1</sup> (lbs./ft.)	TSS <sup>1</sup> (lbs./ft.)	Equivalent Impervious Acres <sup>2</sup> EIA (acres/ft.)
Coastal Plain	0.075	0.068	15	0.02
Non-Coastal Plain	0.075	0.068	45	0.03

<sup>1</sup> *Recommendations of the Expert Panel to Define Removal Rates for Individual Stream Restoration Projects, Schueler and Stack, 2014*

<sup>2</sup> *Municipal Separate Storm Sewer System Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, (Guidance), August 2014*

### **Site Specific Monitoring of Stream Restoration Projects**

The Department also supports the use of site specific stream restoration monitoring data combined with the protocols approved by the CBP for calculating pollutant load reductions for TMDLs. The stream restoration protocols, and specifically the pollutant load reductions associated with the monitoring of individual stream restoration projects, are currently being re-evaluated by the CBP’s Urban Stormwater Work Group. For this reason, the equivalent impervious acre MS4 permit restoration credit for site specific stream restoration monitoring is capped at the actual impervious acres draining to the most downstream point of the stream restoration project. Once the CBP completes its reevaluation of the stream restoration protocols and provides updates, the Department will determine how to incorporate them into future MS4 permits in coordination with the Phase 6 CBP model calibration and will reconsider the impervious acre cap applied to the use of site specific monitoring data.