Proposed Evaluation Methodology for Predicting Groundwater Contamination Potential from Stormwater Infiltration Activities

Shirley E. Clark\(^1\) and Robert Pitt\(^2\)

\(^1\)Penn State Harrisburg Environmental Engineering Programs
\(^2\)Department of Civil, Construction and Environmental Engineering, University of Alabama

Corresponding Author: Shirley E. Clark, seclark@psu.edu

Abstract

Infiltration is gaining acceptance, and is even being encouraged, as a practical way to manage stormwater on site. To prevent potential groundwater contamination, though, tools are required to predict the potential for contamination due to this infiltration for many site conditions, since infiltration should be stressed in areas where the least potential for causing groundwater contamination exists. Factors that influence contamination potential include the pollutant concentration in the runoff directed to the infiltration device, and the ability of the underlying soil to remove the pollutant. This paper presents two levels of modeling for predicting whether groundwater contamination is a concern and whether pre-treatment should be considered.