

Errata to Guidance on Process to Assess and Model Grass Swales for ss. NR 151.13(2) and NR 216.07(6), Wis. Adm. Code - Total Suspended Solids Reduction

The following are clarifications or revisions to the Department of Natural Resources guidance dated April 24, 2008.

A. Measured Infiltration Rates in Swales

Recommendation: The geometric mean(s) of infiltration testing results should be used. However, equally important is to consider whether the measured infiltration rates should be 'grouped' in order to apply separate geometric means to different areas in order to provide representative TSS results across a municipality. Grouping of result might be done based on soil type, spatial reasons or simply done as a method to help provide representative results. For instance, if there are several relatively low infiltration rates measured and the geometric mean of the entire data set is quite high, it may be prudent to group the relatively low rates together and assign to a representative area.

Note: In order to calculate a geometric mean, the data set of values must be greater than zero. Where the infiltration rate is too low to measure, a rate of 0.03 in/hr may be used to calculate a geometric mean of the data set.

B. Pretreatment for Existing Swales

Step 1.A of the April 24, 2008 guidance memo states that “Swales in commercial or industrial areas should have pretreatment swales or equivalent pretreatment in accordance with Vegetated Swale Infiltration Standard, No. 1005.” The pretreatment language in Standard No. 1005 is specifically intended for infiltration swales to reduce potential clogging due to the higher pollutant loads associated with commercial and industrial areas and to prevent pretreatment areas from being counted toward the effective infiltration area credited toward meeting the infiltration cap under s. NR 151.12 (5)(c). The pretreatment portion of a swale effectively removes TSS thus the pretreatment requirement in Standard No. 1005 should only be applied to areas of new development trying to meet the infiltration standard of s. NR 151.12 (5)(c).

Recommendation: The Department hereby revises its April 24, 2008 guidance to not require pretreatment for swale treatment where swales are used to meet the developed urban area standard of s. NR 151.13(2).

This Errata was approved by the Department’s MS4 Liaison Team on January 8, 2010 and it is to be incorporated into an update of the Swale Guidance memo, dated April 24, 2008.