

Evaluation of the Impact of Stormwater Best Management Practices on a Sub-watershed and Watershed Using XPSWMM

Leonard J. Madalon, Jr. MS, PE¹

Associate, EDM Incorporated, 220 Mansion House Center, St. Louis, Missouri 63102; PH (314) 231-5485; FAX (314) 231-8167;
email: Len.Madalon@edm-inc.com

Abstract

The City of Frontenac, Missouri, has become the stormwater management leader in the St. Louis Metropolitan Area by requiring single-lot residential developers to mitigate the effects of increased impervious area. Frontenac is developing a comprehensive stormwater master plan to ensure that the impacts on stormwater runoff due to recent development and future infrastructure are addressed. The consequences of development are analyzed and the impact of Best Management Practices on the City's watersheds is evaluated. The discussion of Best Management Practices will focus on infiltration. Rain gardens in particular will be evaluated in this paper, though other infiltration practices are being implemented as well.