

1145-76-3031      **Anh Bui\*** (abui@smith.edu), Smith College, Department of Mathematics and Statistics, 44  
College Lane, Northampton, MA 01063. *An investigation of different hydrological models.*

Hydrologists use different mathematical models to simulate estimates of high flows. SWAT is an important but complicated hydrologic model used to examine the effects of land-use scenarios on high flows in New England. Recent work by Guswa, Meyer, and Hamel simplified SWAT by using the NRCS curve number method combined with an exponential distribution of rainfall. The goal of this project is to investigate the utility of Guswa, Meyer, and Hamel's model by comparing estimates of high flows with results from SWAT. We describe results comparing the relative accuracy of this new model with the SWAT model. (Received September 26, 2018)