ABSTRACT

TITLE:	Hydraulic Modeling of a Gravity Flow Water System
AUTHOR(S):	Bohana, Max
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ABSTRACT: Hydraulic modeling is an essential tool used in the design of gravity flow water systems. In order to properly size a water system, numerous interdependent parameters must be considered including flow rate, pressure, and friction loss. The emitter coefficient is an empirical factor used to describe the flow through a water spigot, valve, or other flow regulating device in a pressure dependent system. Laboratory investigations were combined with field measurements from operating water systems to determine appropriate value(s) for the emitter coefficient. These values were then used to validate the efficacy of a hydraulic model. In most cases the resulting emitter coefficients provided close agreements between model and observed flow rates.