

Texas A & M University and U.S. Bureau of Reclamation

Hydrologic Modeling Inventory

Model Description Form

July 2007

Name of Model:

PSRM

Model Type:

Kinematic wave hydrologic simulation

Model Objective(s):

To provide engineers and planners with a hydrologic model which allows runoff estimates of acceptable accuracy with easily available information

Agency and Office:

Technical Contact and Address:

Gert Aron, 227 Kimpport Ave, Boalsburg PA 16827

Model Structure or Mathematical Basis:

Kinematic wave

Model Parameters:

Rainfall, land imperviousness, curve numbers surface roughness

Spatial Scale Employed in the Model:

Temporal Scale Employed in the Model:

Input Data Requirements:

Rainfall, sub area dimensions, curve numbers runoff path geometry and roughness, pond dimensions

Computer Requirements:

IBM-compatible PC, 200k memory

Model Output:

Runoff from subareas and out of ponds

Parameter Estimation / Model Calibration:

Up to model user

Model Testing and Verification:

Up to model user

Model Sensitivity:

Depends on input

Model Reliability:

In calibration runs, the model produced peaks and volumes within 30% of observed values

Model Application / Case Studies:

The model has been used by many municipalities specifically brandy wine watershed, Pennsylvania

Documentation:

PSRM manual

Other Comments: