

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

Hydrologic Modeling Inventory

Model Description Form

July 2007

Name of Model:

SYN-HYD

Model Type:

Hydrograph simulation by convolution of rainfall

Model Objective(s):

To allow the user to estimate runoff from a given rainfall event

Agency and Office:

Technical Contact and Address:

Gert Aron, 227 Kimpoty Ave Boalsbury PA 16827

Model Structure or Mathematical Basis:

Convolution of rainfall and runoff in the form of gamma distribution

Model Parameters:

Rainfall, travel times, curve numbers

Spatial Scale Employed in the Model:

Temporal Scale Employed in the Model:

Input Data Requirements:

Rainfall, subarea dimensions, travel times

Computer Requirements:

IBM compatible PC, 200k memory

Model Output:

Runoff hydrographs

Parameter Estimation / Model Calibration:

Up to model user

Model Testing and Verification:

Up to model user

Model Sensitivity:

Depends on the skill of the cases

Model Reliability:

On the average $\pm 30\%$

Model Application / Case Studies:

Po Valley, Italy

Documentation:

User manual

Other Comments: