

Texas A & M University and U.S. Bureau of Reclamation
Hydrologic Modeling Inventory
Model Description Form
June 2007

Name of Model:

SIMHYD

Model Type:

Simple conceptual daily rainfall-runoff model

Model Objective(s):

To estimate runoff from rainfall and PET data

Agency and Office:

Center for Environmental Applied Hydrology, University of Melbourne

Technical Contact and Address:

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Model Structure or Mathematical Basis:

Conceptual, Mimics hydrological process. Only use algorithms that can describe processes adequately in terms of physical significance.

Model Parameters:

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Spatial Scale Employed in the Model:

Lumped model, can apply to catchments up to 5000 km²

Temporal Scale Employed in the Model:

Daily

Input Data Requirements:

Daily rainfall and PET

Computer Requirements:

"Any"

Model Output:

Runoff and summary of runoff components and other hydrological fluxes

Parameter Estimation / Model Calibration:

Model is linked to pattern search optimization routine

Model Testing and Verification:

Extensive testing and application (see paper) – in cross-verification mode

Model Sensitivity:

Model Reliability:

Can estimate runoff satisfactory

Model Application / Case Studies:

Extensive testing and application (see paper)

Documentation:

Fortran

Other Comments: