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

Name of Model: Institute for Hydrospheric-Atmospheric Sciences (IHAS), Nagoya University, Japan

Model Type: Numerical hydrological model

Model Objective(s): To understand the basin scale heat and water regimes through hydrological modeling

Agency and Office: Institute for Global Change Research

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Model Structure or Mathematical Basis: This is a combined model which is composed of a simple SVAT (Soil-Vegetation-Atmosphere Transfer) model, runoff model and river routing model explain snowmelt, evapotranspiration, thawing and freezing of permafrost and river flow

Model Parameters: Index of vegetation condition, thermal conductivity of soil and water flow velocity in the river

Spatial Scale Employed in the Model: The maximum is 10,000 km^2 for a grid

Temporal Scale Employed in the Model: One hour

Input Data Requirements: Daily routine meteorological data

Computer Requirements: Personal computer or workstation

Model Output: Evapotranspiration and runoff for grid level and discharge for watershed scale

Parameter Estimation/ Model Calibration: Need

Model Testing and Verification: Need

Model Sensitivity:

Model Reliability:

Model Application/ Case Studies: Small mountainous watershed of Japan and Lena River basin of Siberia

Documentation:

Other Comments: