Hydrologic Model Manager

Short Name	DHSVM
Long Name	Distributed Hydrology Soil Vegetation Model
Description	
Model Type	Distributed physically-based model
Model Objectives	To provide a dynamic representation of the spatial representation of evapotranspiration, snow cover, soil moisture, and runoff at the scale of digital elevation data.
Agency _Office	Pacific Northwest National Laboratory, Richland, Washington, U. S. A.
Tech Contact	Dr. Mark S. Wigmosta
Model Structure	The model provides a dynamic representation of watershed processes at the spatial scale described by digital elevation model data. Physical principles are employed in representation of processes.
Interception	
Groundwater	
Snowmelt	
Precipitation	
Evapo-transpiration	
Infiltration	
Model Paramters	22
Spatial Scale	10 – 90 m horizontal resolution
Temporal Scale	Continuous
Input Requirements	
Computer Requirements	
Model Output	Runoff hydrograph
Parameter Estimatn Model Calibrtn	Most parameters have physical meaning and estimated from physical measurements.
Model Testing Verification	Hydrometeorological data, rainfall, soils maps, watershed maps, and land use maps.
Model Sensitivity	Nor reported
Model Reliabiity	Nor detailed but the model accuracy is reported to be high.
Model Application	It has been applied in numerous studies, including evaluation of mass and energy fluxes under snow free conditions, evaluation of canopy snow interception and ground snowpack, impacts of interception by logging roads, interaction between climate and hydrology, potential impact of climate change on water resources, etc.
Documentation	Nor available but it can be obtained from Dr. M. S. Wimosta.
Other Comments	It is a potentially useful model and can be used for a variety of purposes. References: Wigmosta, M. S., Vail, L. W., and Lettenmaier, D. P., 1994. A distributed hydrology-vegetation model for complex terrain. Water Resources Research,

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Developer	
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Contact Organization	