

Proceedings of the

THIRD Federal Interagency Hydrologic Modeling Conference

April 2–6, 2006
Reno, Nevada USA



Sponsored by the Subcommittee on Hydrology
(a subcommittee of the Advisory Committee on Water Information)

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**PROCEEDINGS
OF THE
THIRD FEDERAL INTERAGENCY
HYDROLOGIC MODELING CONFERENCE (3rd FIHMC)**

April 2 – 6, 2006

RENO, NEVADA

Subcommittee on Hydrology

Agricultural Research Service
American Forests
Association of State Floodplain Managers
Bureau of Land Management
Bureau of Reclamation
Defenders of Property Rights
Federal Emergency Management Agency
Federal Energy Regulatory Commission
Federal Highway Administration
National Hydrologic Warning Council
National Science Foundation
National Weather Service
Natural Resources Conservation Service
US Army Corps of Engineers
US Environmental Protection Agency
US Forest Service
US Geological Survey

PREFACE

The Subcommittee on Hydrology (SOH) held the Federal Interagency Workshop on Hydrologic Modeling Demands for the 90's in Fort Collins, Colorado in 1993. That highly successful workshop was limited to Federal participants. Subsequent to that workshop, the SOH decided to hold a broader conference and to open it to all interested parties. The conference covered models addressing surface water quality and quantity issues and was held in 1998 in Las Vegas, Nevada. That conference, the First Federal Interagency Hydrologic Modeling Conference, was also very successful. One of the needs identified in that conference was for better coordination among similar model development/support activities in the profession.

To address those needs and plan for the future, the SOH decided to hold the Second Federal Interagency Hydrologic Modeling Conference (2nd FIHMC). An interagency scoping workshop was held in Tucson, Arizona in November, 2000 and key issues were identified. The Second FIHMC was held in Las Vegas, Nevada in July, 2002 and was attended by approximately 350 participants from government, the academic community

and private industry. Approximately 160 technical papers and 40 posters were presented along with five short courses.

Shortly after the conclusion of the 2nd FIHMC, it was decided to hold a third Federal Interagency Hydrologic Modeling Conference (3rd FIHMC) in 2006 and, because 2006 was also the year for the 8th Federal Interagency Sedimentation Conference, it was decided to hold the two conference jointly, under the umbrella of the Joint Federal Interagency Conference (JFIC). The joint conference convened under the theme “Interdisciplinary Solutions for Watershed Sustainability” and provided an opportunity for professionals from both disciplines representing government, the academic community and private industry to learn from each others work and to network together.

Organizing Committee for the 3rd FIHMC		
Chairman:	Don Frevert	US Bureau of Reclamation
Technical Program Committee Chair:	George Leavlsley and Steve Markstrom	US Geological Survey
Presentations:	Roland Viger	USDA-NRCS

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MANAGEMENT SIMULATION ENGINE: A FLEXIBLE, HIERARCHICAL CONTROL ARCHITECTURE OF THE REGIONAL SIMULATION MODEL (RSM)	Joseph Park; Jayantha Obeysekera; Randy VanZee	PDF
MSE NETWORK: AN INTEGRATED DATABASE & STREAM FLOW NETWORK REPRESENTATION IN THE REGIONAL SIMULATION MODEL (RSM)	Michelle Irizarry; Joseph Park; Jayantha Obeysekera; Randy VanZee	PDF
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CHALLENGES AND APPROACHES IN THE DEVELOPMENT OF A REGIONAL-SCALE, FIRST-PRINCIPLE, AND PHYSICS-BASED WATERSHED MODEL FOR SOUTH FLORIDA WATER MANAGEMENT AND ECOSYSTEM RESTORATION	H.-P. Cheng; C. M. Hansen; C. A. Talbot; J.-R. Cheng; D. C. McVan; C. H. Tate; E. V. Edris; H.-C. Lin; M. A. Granat; D. R. Richards	PDF
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