WATERSHED MANAGEMENT 2010

INNOVATIONS IN WATERSHED MANAGEMENT UNDER LAND USE AND CLIMATE CHANGE

PROCEEDINGS OF THE 2010 WATERSHED MANAGEMENT CONFERENCE

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Preface

The 2010 Watershed Management Conference "Innovations in Watershed Management Under Land Use and Climate Change" was sponsored by the Environmental and Water Resources Institute (EWRI) of the American Society of Civil Engineers (ASCE). The 2010 Conference is the tenth in a series of specialty conferences focused on watershed management. The first was held in Billings, Montana, in 1965. Subsequent conferences were held in the cities of Bozeman (1970), Logan (1975), Boise (1980), Denver (1985), Durango (1990), San Antonio (1995), Fort Collins (2000), and Williamsburg (2005).

The conference brought together a diverse group of attendees, each with a critical stake in watershed management. The attendees included engineers, hydrologists, foresters, range scientists, biologists, ecologists, economists, attorneys, public officials, and governmental planners. As with past Watershed Management conferences, presentations at the 2010 conference came from national and international professionals and experts whose unique perspectives are central to the goals of the meeting.

The Watershed Management 2010 conference included special theme tracks that focused on important and pressing problems facing our society today. Specific theme tracks included:

- Climate Change, including large-scale assessment, adaptation, and impacts on hydrology, habitat, and water quality.
- Hydrologic Restoration, including restoration of wetlands, streams, and rivers; fish passage enhancement; restoration assessment and design; and case studies.
- Watershed Modeling, including modeling innovations, integrated modeling, rainfall characterization, parameter estimation, modeling of floods, hydrologic processes, and case studies.
- Watershed Management, including integrated watershed management, flood management, and impact assessment.
- Stormwater Management, including planning and design, low impact development design, and case studies.
- Focused tracks on Water Quality Measurement, Stochastic and Statistical Methods, Economics and Water Resources Decision Making, and Hydrodynamic Modeling.

In addition to the technical sessions, there was a special session exploring the gap between research and practice. Water resource managers, facility operators, regulators, consultants, and researchers discussed critical research needs as well as strategies for overcoming impediments to the adoption of research innovations.

Many individuals have contributed to planning this conference. As usual, the ASCE Watershed Management Technical Committee provided valuable oversight. Donald Frevert served as the conference co-chair. Throughout the planning process we were ably assisted by the dedicated staff at ASCE/EWRI, including Brian Parsons, Ann Rountree, and Autumn Richter. Finally, Stacey Gardiner provided critical services as conference manager.

These proceedings represent an extraordinary amount of effort from many individuals. I would first like to thank the authors who have contributed papers to these proceedings. There are approximately 150 papers, or abstracts in lieu of a full paper. I would like to extend a special thanks to the individuals who served as reviewers of these papers. Their work helped ensure the quality of all papers in this volume and everyone reading these proceedings benefits enormously from their efforts. The paper reviewers for these proceedings were Jim Bachhuber, Ed Beighley, John Clements, John Durant, Gary Dyhouse, Mark Ellard, Don Frevert, Steve Gaffield, Susen Gali, Stan Gibson, Dave Goodrich, Pete Hawkins, Claudia Hoeft, Gopi Jagligama, Kevin Landwehr, Jon Lefers, David Liebl, Eric Loucks, Glenn Moglen, Brian Murphy, Elizabeth Murphy, Theresa Nelson, Tom Over, Thanos Padnanabhan, Don Phelps, Heather Preisen , Dean Randall, Ken Renard, Marc Schulte, Tom Sear, Ranvir Singh, Steve Starrett, Robert Thoman, Steve Trinkhaus, John Walker, Tim Ward, Kirk Westphal, and Don Woodward.

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