

Biographical Sketch
David Phillip Guertin

Professional Preparation:

National Research Council	Postdoctoral Fellow	1985-1986	Hydrology
University of Minnesota	Ph.D.	1981-1984	Forest Hydrology
Colorado State University	M.S.	1978-1979	Watershed Hydrology
Utah State University	B.S.	1974-1977	Forest Hydrology

Appointments:

1978 – 1979	Graduate Research Assistant, Colorado State University, Ft. Collins, CO
1979 – 1981	Assistant Scientist, University of Minnesota, Cloquet Forestry Center, Cloquet, MN
1981 – 1984	Graduate Research Assistant, College of Forestry, University of Minnesota, St. Paul, MN
1985 – 1986	National Research Council Postdoctoral Fellow, U.S. Geological Survey, MS 420, Denver Federal Center, Lakewood, CO
1986 – 1988	Assistant Research Scientist, School of Renewable Natural Resources, University of Arizona, Tucson, AZ
1994 – 2000	Group Leader, Advanced Resource Technology Group, University of Arizona
1998 – 2007	Program Chair, Landscape Studies Program, University of Arizona
1988 – Present	Assistant, Associate, Full Professor, University of Arizona
2005 – Present	Extension Specialist, University of Arizona
2007 – 2013	Program Chair, Watershed Management and Ecohydrology Program, University of Arizona

Selected Publications:

- Miller, S.N., D.J. Semmens, D.C. Goodrich, M. Hernandez, R.C. Miller, W.G. Kepner and D.P. Guertin. 2007. The Automated Geospatial Watershed Assessment tool. *Environmental Modeling and Software* 22: 365-377.
- Levick, L.R., J. Fonseca, D.C. Goodrich, M. Hernandez, D. Semmens, J. Stromberg, R.A. Leidy, M. Scianni, D.P. Guertin, M. Tluczek and W.G. Kepner. 2008. The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest. U.S. Environmental Protection Agency, Region 9, Office of Water, San Francisco, CA.
- Norman, L.M., D.P. Guertin and M. Feller. 2008. A Coupled Model Approach to Reduce Nonpoint-Source Pollution Resulting From Predicted Urban Growth: A Case Study in the Ambos Nogales Watershed. *Urban Geography* 25(5): 496-516.
- Wei, H., M.A. Nearing, J.J. Stone, D.P. Guertin, K.W. Spaeth, F. Pierson, M.H. Nichols, and C.A. Moffett. 2009. A new Splash and Sheet Erosion Equation for Rangelands. *Soil Science of America Journal*. 73:1386-1392
- Massart, J., P. Guertin, R. Smith, David Goodrich, C. Unkrich, and L. Levick. 2010. KINEROS-OPUS—Spatially Based Watershed Hydrologic and Biogeochemical Modeling. In: *Proceedings of the Joint Federal Interagency Conference 2010: Hydrology and Sedimentation for a Changing Future*, Las Vegas, NV, June 27- July 1, 2010.
- Norman, Laura M., H. Huth, L. Levick, I.S. Burns, D.P. Guertin, F. Lara-Valencia and D. Semmens. 2010. Flood Hazard Awareness and Hydrologic Modeling at Ambos Nogales, US-Mexico Border. *Journal of Flood Risk Management* (2010): 1-15.
- Goodrich, D.C., D.P. Guertin, I.S. Burns, M.A. Nearing, J.J. Stone, H. Wei, P. Heilman, M. Hernandez, K. Speath, F. Pierson, G.B. Page, S.N. Miller, W.G. Kepner, G. Ruyle, M.P. McClaran, M. Weltz, and L. Jolley. 2011. AGWA: The automated geospatial watershed assessment tool to inform rangeland management. *Rangelands*, 33(4): 41-47.

- Weltz, Mark A., Leonard Jolley, Dave Goodrich, Ken Boykin, Mark Nearing, Jeff Stone, Phil Guertin, Mariano Hernandez, Ken Spaeth, Fred Pierson, Christo Morris, and Bill Kepner. 2011. Techniques for assessing the environmental outcomes of conservation practices applied to rangeland watersheds. *Journal of Soil and Water Conservation*, 66(5):154A-162A; doi:10.2489/jswc.66.5.154A.
- Guertin, D.P. and D.C. Goodrich. 2011. Chapter 17 - The Future Role of Information Technology in Erosion Modeling. In: *Handbook of Erosion Modelling*, R.P.C. Morgan and M.A. Nearing (Editors). Wiley and Sons, New York, New York, pp. 324-338.
- Goodrich, D.C., I.S. Burns, C.L. Unkrich, D. Semmens, D.P. Guertin, M. Hernandez, S. Yatheendradas, J.R. Kennedy, L. Levick, L. 2012. KINEROS2/AGWA: Model Use, Calibration, and Validation. *Transactions of the ASABE*. 55(4): 1561-1574.

Five Synergistic Activities:

Arizona Cooperative Extension Watershed Specialist - Work with watershed groups across the state.
Program Chair – Watershed Management and Ecohydrology Program
Member of the Faculty Senate – University of Arizona
Member of the multiagency Automated Geospatial Watershed Assessment Research Team
Collaborator with the USDA-NRCS Grazingland Conservation Effects Assessment Project

Current Supported Research:

Project Title: Cumulative Impacts of CWA Permitting Actions: A Multi-Scale Investigation of Downstream Effects for Existing Conditions and Future Scenarios

Source of Support: U.S. EPA – Region 8 Regional Applied Research Effort (RARE) Grant

Performance Period: 2012- 2014

Total Budget: \$100,000

Project Title: Evaluating Green Infrastructure Management Techniques in Arid and Semi-arid Regions

Source of Support: U.S. EPA LID Program

Performance Period: 2012- 2014

Total Budget: \$58,000

Project Title: Automated Geospatial Watershed Assessment (AGWA) to Aid in Sustaining Military Mission and Training

Source of Support: DOD-ESTCP

Performance Period: 2013- 2016

Total Budget: \$987,535

Project Title: Interagency Agreement between the BLM and ARS to support the DOI National BAER Team

Source of Support: DOI - BLM

Performance Period: 2012- 2015

Total Budget: \$35,000, plus \$7,000 for each BAER assignment

Project Title: An Ecohydrological Approach to Managing Defense Lands In the Southwestern United States

Source of Support: DOD-SERDP

Performance Period: 2010- 2014

Total Budget: \$1,197,000

Project Title: Evaluating the Effects of Grazing Land Conservation Practices on Southwestern Watersheds

Source of Support: USDA-CSREES-CEAP

Performance Period: 2008- 2013

Total Budget: \$598,000

Project Title: Cumulative Impacts of CWA Permitting Actions: A Multi-Scale Investigation of Downstream Effects for Existing Conditions and Future Scenarios

Source of Support: U.S. EPA – Region 9 Regional Applied Research Effort (RARE) Grant

Performance Period: 2010- 2013

Total Budget: \$100,000

Project Title: Cumulative Impacts of CWA Permitting Actions: A Multi-Scale Investigation of Downstream Effects for Existing Conditions and Future Scenarios

Source of Support: U.S. EPA – Region 9 Regional Applied Research Effort (RARE) Grant

Performance Period: 2010- 2013

Total Budget: \$100,000

Project Title: USDA – ARS Specific Agreement

Source of Support: USDA - ARS

Performance Period: 2012- 2017

Total Budget: \$214,095

Project Title: Arizona Nonpoint Education for Municipal Officials Program

Source of Support: Arizona Department of Environmental Quality

Performance Period: 2010- 2014

Total Budget: \$334,183

Project Title: Master Watershed Steward Program

Source of Support: Arizona Department of Environmental Quality

Performance Period: 2010- 2014

Total Budget: \$210,588

Project Title: Application of LIDAR for Riparian Mapping

Source of Support: Pima County

Performance Period: 2013

Total Budget: \$18,000