

J. WILLIAM (BILL) BROWN

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ACADEMIC BACKGROUND

Graduate Work, Biosystems and Agricultural Engineering, Water Resources Minor, University of Minnesota, Minneapolis-Saint Paul

Research Topic: Watershed Impacts on Recharge Depressions in Moraine Landscapes

M.S., Agricultural Engineering Oklahoma State University, May 1989

Thesis Title: Generalized Unit Hydrograph: Development and Evaluation

B.S., Agricultural Engineering

University of Illinois, Urbana-Champaign, May 1987

B.S., Agricultural Sciences

University of Illinois, Urbana-Champaign, May 1987

PROFESSIONAL INDUSTRY EXPERIENCE

Center Director, Association of State Floodplain Managers – Flood Science Center, Madison, Wisconsin, January 2017 – Present.

Manage the Flood Science Center and oversee science-based research focused on reducing flood risk.

Senior Project Manager, Association of State Floodplain Managers – Science Services, Madison, Wisconsin, April 2016 – December 2016.

Managed projects focused on reducing flood risk and supporting federal, state and local floodplain management activities.

Stormwater Executive Manager, Public Works & Transportation Department, Stormwater Management Division, City of Arlington, Texas, January 2009 – March 2016.

Stormwater Executive Manager responsible for the City of Arlington's Stormwater & Floodplain Management Programs.

Assistant City Engineer, Public Works Department, Engineering Division, Environmental Engineering Bureau, City of Greenville, South Carolina, August 2006 – January 2009.

Environmental Engineering Bureau Administrator responsible for the City of Greenville's Wastewater Engineering and Stormwater Management Programs.

Senior Project Engineer, DuPage County Stormwater Management, Wheaton, Illinois, April 1996 - August 2006.

Responsible for management of DuPage County's floodplain mapping program.

Watershed Engineer, Lake County Stormwater Management Commission, Libertyville, Illinois, July 1991-September 1992.

Responsible for basin planning in the Des Plaines and Fox River Watersheds in Lake County, Illinois.

Hydrologic Engineer, Hey and Associates, Inc., Chicago & Libertyville, Illinois, February 1989- July 1991.

Conducted hydrologic analysis and simulations for wetland mitigation and drainage design projects.

Engineering Technician, Illinois Department of Transportation, Bureau of Construction, District 6, Springfield, Illinois. May-August 1984, 1985, 1986.

Conducted site surveys, construction inspection and documentation of bridge and interstate highway construction projects.

Engineering Technician, Scott County Highway Department, Winchester, Illinois. May-August 1983.

Conducted site survey work, construction inspection and documentation of storm sewer installation and highway resurfacing.

PROFESSIONAL ACADEMIC EXPERIENCE

Adjunct Faculty, Department of Civil Engineering, University of Texas at Arlington, Spring 2010-2016.

- Taught the graduate course on theoretical and applied mechanics of contaminant transport and fate in surface and ground water.

Research Fellow, Department of Biosystems and Agricultural Engineering, University of Minnesota, Saint Paul, Minnesota, September 1994-March 1996.

- Conducted research in the hydrology and contaminant transport mechanics of depression focused recharge areas.

Research Assistant, Department of Biosystems and Agricultural Engineering, University of Minnesota, Saint Paul, Minnesota, September 1992-August 1994.

- Conducted research in the hydrology and contaminant transport mechanics of depression focused recharges areas.

Research Assistant, Department of Agricultural Engineering, Oklahoma State University, August 1987-January 1989.

- Conducted research in measurement of flow velocity in small rills and dynamic changes within the rill.

Laboratory Technician, Department of Agricultural Engineering, University of Illinois, December 1984-May 1985, August 1985-May 1986, August 1986-July 1987.

- Conducted laboratory analysis of soil properties and field work in soil erosion research.

PROFESSIONAL AND SCHOLASTIC ACTIVITIES

Department of Interior, United States Geological Survey

Advisory Council on Water Information, ASFPM Representative Appointed 2014-2018.

Regional Stormwater Management Coordinating Council, North Central Texas Council of Governments, Chair. 2013-2014, Vice-Chair 2012-2013

National Research Council of The National Academies

Committee on FEMA Flood Maps. 2007-2009

Community High School District Number 94

Board of Education 2005-2006

Federal Emergency Management Agency

State and Local Advisory Work Group. 2004-2007

Illinois Association for Floodplain & Stormwater Management

Treasurer 1997, 1998

Vice Chair 1999, 2000

Chair 2001, 2002

Association of State Floodplain Managers

Co-Chair, Mapping & Engineering Standards Committee 2004-2008

Co-Chair, Stormwater Committee 2008-Present

National Association of Counties

Geospatial Information Committee 1998-1999

Federal Geographic Data Committee, Biological Data Working Group 1998-1999

INSTRUCTIONAL AND GUIDANCE ACTIVITIES

- The Role of Green Infrastructure in Changing Stormwater Management Approaches & Regulations. Training Workshop at the Association of State Floodplain Managers Annual Conference, Louisville, KY.
- Low-Impact Development: Managing Wet Weather with Green Infrastructure. Training Workshop at the Association of State Floodplain Managers Annual Conference, Orlando, Florida.
- Introduction to Green Infrastructure for Stormwater Management. Instructor. 19th Annual Building Professional Institute. University of Texas at Arlington.

- Served as a Local Government Advisor to the FEMA Map Modernization Work Group, responsible for providing local and state input and guidance to FEMA Staff on Map Modernization issues.
- Lorman Education Services Seminar speaker on Stormwater Management Regulations in South Carolina.
- Taught workshops to community officials, municipal engineers, and consulting engineers on the process and requirements of Floodplain Mapping in DuPage County.
- Taught workshops to community officials on the requirements of the Lake County Watershed Development Ordinance.
- Taught workshops to consulting and municipal engineers on the use of the Lake County Watershed Development Ordinance Technical Reference Manual.
- Served as the student representative to the Department of Biosystems and Agricultural Engineering's Graduate Program Committee (University of Minnesota).
- Taught and supervised AGEN 3052, Plant, Soil, and Water Engineering, organizing weekly labs. Labs included measuring soil moisture content in the field and lab, soil classification, soil strength properties, and soil hydraulic properties.
- Taught the use of a commercial hydrologic simulation model to students taking AGEN 5540, Watershed Engineering. The model, SEDCAD, was used in a laboratory project to analyze the hydrologic and sedimentologic response of a watershed to various management options.
- Served as an ad-hoc advisor to undergraduate students by assisting them in the preparation of resumes, identifying potential employers, and assisting in the arrangements of student social functions.

REGISTRATION

Professional Engineer:

State of Texas, License Number 109250

State of Illinois, License Number 062-051020

State of South Carolina, License Number 25321

North Texas Swimming: Meet Referee, Deck Referee, Starter, Stroke & Turn

USA Swimming: N2 Starter, Chief Judge; and N3 Stroke & Turn, Referee

Federation of State High School Associations: Swim Official

Collegiate Swimming Officials Association: Swim Official

PAPERS (Authored and Co-Authored)

Measuring Dynamic Changes in Rill Flows. 1987. ASAE Paper #87-2577. American Society of Agricultural Engineers. ASAE Winter Meeting, Chicago, Illinois.

Generalized Unit Hydrograph: Development and Evaluation. 1989. ASAE Paper No. 892077. American Society of Agricultural Engineers. ASAE International Summer Meeting, Quebec City, Quebec, Canada.

Image Processing System for Measuring Surface Velocities. 1988. Applied Engineering in Agriculture, Volume 4, No. 4.

Development and Evaluation of a Dimensionless Unit Hydrograph. 1992. Water Resources Bulletin, Volume 28(2): 397-408.

Observed Surface Flow Paths From Field Erosion Plots. 1994. ASAE Paper No. 942049. American Society of Agricultural Engineers. ASAE Summer Meeting, Kansas City, Missouri.

Field Instrumentation of a Depression Focused Recharge Site. 1994. ASAE Paper No. 942049. American Society of Agricultural Engineers. ASAE Summer Meeting, Kansas City, Missouri.

Comprehensive Basin Models: Coupling of Physical, Chemical, and Ecologic Components. 1994. ASAE Paper No. 942572. American Society of Agricultural Engineers. ASAE Winter Meeting, Atlanta, Georgia.

Observations and Simulation of Watershed Impacts on Recharge Depressions. 1995. USDA Working Group on Water Quality National User's Group Meeting: Clean Water - Clean Environment - 21st Century. Hyatt Regency Crown Center, Kansas City, Missouri.

Observed Results From A Field Study of Depression Focused Recharge. 1996. ASAE Paper No. 962089. American Society of Agricultural Engineers. ASAE Annual International Meeting, Phoenix, Arizona.

Using Organization Concepts from Ecological Studies to Model Water Quality. 1996. The Institute of Biological Engineering. Annual Meeting, Phoenix, Arizona.

DuPage County Watershed Planning. 1997. Proceedings of the 21st Annual Conference of the Association of State Floodplain Managers. Madison, WI. Pp. 91-96.

Comparative Study of Traditional and DuPage County Floodplain Mapping Techniques. 1997. Proceedings of the 21st Annual Conference of the Association of State Floodplain Managers. Madison, WI. Pp. 215-224.

GIS Applications in Support of Watershed Planning in DuPage County, Illinois. 1998. Proceedings of the 22nd Annual Conference of the Association of State Floodplain Managers. Madison, WI.

Innovative Floodplain Mapping Procedures Utilized in DuPage County, Illinois. 1998. Proceedings of the 22nd Annual Conference of the Association of State Floodplain Managers. Madison, WI.

Countywide Floodplain Mapping Project for DuPage County, Illinois. 1999. Proceedings of the 23rd Annual Conference of the Association of State Floodplain Managers. Madison, WI.

Manuals & Reports (Authored, Co-Authored, and Co-Edited)

Lake County Watershed Development Technical Reference Manual. 1992. Lake County Stormwater Management Commission, Libertyville, Illinois.

Minnesota River Surface Tile Inlet Research: Part III, Modeling Component. 1995. Report to the Minnesota Pollution Control Agency.

Minnesota River Surface Tile Inlet Research, Modeling Component. 1997. Final Report, Legislative Commission on Minnesota Resources.

Mapping the Zone: Improving Flood Map Accuracy. 2009. National Research Council of the National Academies. National Academies Press. Washington, DC.

Conference or Seminar Presentations

Preliminary Results of Study Comparing Traditional and DuPage County Floodplain Mapping Techniques. 1997. Illinois Association for Floodplain and Stormwater Management. 1997 Annual Conference.

Comparison of Traditional and DuPage County Floodplain Mapping Techniques. 1997. American Water Resources Association's Annual Conference on Water Resources. Sheraton Long Beach Hotel, Long Beach, California.

CTP Agreement in DuPage County, Illinois. How we got here and where are we going. 2000. Association of State Floodplain Managers Annual Conference. Austin, Texas.

Countywide Floodplain Mapping Initiative in DuPage County. 2002. Illinois Association for Floodplain and Stormwater Management. 2002 Annual Conference.

GIS Floodplain Mapping in DuPage County. 2002. Illinois Association for Floodplain and Stormwater Management. 2002 Annual Conference.

No Adverse Impact Policies Implemented in DuPage County, Illinois. 2002. Association of State Floodplain Managers Annual Conference, Phoenix, Arizona.

Consolidation of Inter-Jurisdictional Responsibilities for Stormwater and Floodplain Management in DuPage County, Illinois. 2003 Association of State Floodplain Managers Annual Conference, Saint Louis, Missouri.

Flood Map Modernization. The BIG Picture: How are we doing and Where are we going? Plenary Speaker. 2005 Association of State Floodplain Managers Annual Conference, Madison, Wisconsin.

DuPage County Floodplain Management Program, Mapping & Regulations. Speaker. 2006. DuPage County Municipal Engineers Group.

Mapping the Zone, Summary of the National Research Council of the National Academies Report. 2009. Association of State Floodplain Managers Annual Conference, Orlando, Florida.

Mapping the Zone, Summary of the National Research Council of the National Academies Report. 2009. Texas Floodplain Managers Association, North Texas Local Area Seminar and Luncheon, Grand Prairie, Texas.

A Spatial Planning Approach for Arlington's Comprehensive Stream Management Plan. 2010. Association of State Floodplain Managers Annual Conference, Oklahoma City, OK.

Rapid Development of a Flood Acquisition Project. 2011. Association of State Floodplain Managers Annual Conference, Louisville, KY.

Grab Mitigation by the Horns: City of Arlington, Cowboys & Mitigation. 2012. National Flood Conference, Austin, TX.

Accepting and Taking Responsibility for Mitigation Locally. 2013. Association of State Floodplain Managers Annual Conference, Hartford, CT.

Urban Flooding, Resiliency, Mitigation, and Flood Insurance Concepts in the Era of BW-12. 2013. Discussion Session Panelist & Speaker at the Association of State Floodplain Managers Annual Conference, Hartford, CT.

Greening a Grey System. 2014. Low Impact Development in North Texas Workshop. University of Texas at Arlington.

Floodways: How Adverse Can We Get? 2014. Association of State Floodplain Managers Annual Conference, Seattle, WA.