

DAWN R. FERRIS, PHD, PSS, CPSS

Soil Science Program Coordinator

Soil Science Society of America

dferris@sciencesocieties.org

EDUCATION

<u>School</u>	<u>Degree</u>
University of Minnesota St. Paul, Minnesota	Ph.D. 1997 Forest Hydrology Dissertation Title: Subsurface Flow Patterns between Uplands and Peatlands
University of Minnesota St. Paul, Minnesota	Master of Science 1987 Soil Science, Soil Physics emphasis Thesis Title: Soil Physical Properties as Influenced by the Addition of Municipal Compost
University of Wisconsin Madison, Wisconsin	Bachelor of Science 1984 Soil Science, Land Use Planning emphasis

EXPERIENCE

<u>Position Title</u>	<u>Institution/Company</u>
Soil Science Program Coordinator	Soil Science Society of America – July 2010 to present The primary objectives of Dr. Ferris's position with SSSA include overseeing the soil science licensing and certification programs for SSSA (including legislative issues), teaching on-line courses for continuing education, facilitating continuing education for soil scientists, and to overall help to grow the soil science profession by working with and facilitating communication between the private sector, government and academia.
Assistant Professor	The Ohio State University – August 2006 to June 2010 School of Environment and Natural Resources. Graduate level teaching in watershed restoration, undergraduate teaching in environmental science and policy, forest hydrology, and soils. Research in Iceland on early and mid-successional landscapes and their relation to carbon sequestration and ecosystem services. Member of the graduate faculty in Soil Science and Natural Resources as well as Environmental Science. Major advisor for several master's degree students and also sitting on Ph.D. committees and Master's degree committees.

Soils Consultant

Soil Science Society of America – 2007 to June 2010

Managed the National Soil Science Licensing and Certification Exams as well as the Performance Objectives that define the practice of soil science. Worked with the Council of Soil Science Examiners to write questions and assembled the exams each year.

Natural Resources Director

Scott County, Minnesota – November 2001 to July 2006

Managed the Natural Resources Department activities, including hiring, supervision, training, and evaluation of assigned staff or consultants, preparation of budgets, work plans, schedules, correspondence, and communication in accordance with County policies and applicable laws. Provided assistance to township officials, city administrators, mayors, engineers, public agencies, and private developers/landowners for the development of existing and proposed water and natural resources projects and programs. Prepared and provided technical input to other staff pertaining to natural resources, water resources, soils, wetlands, parks, trails, and open space, and water planning activities including review of private development projects. Responsible for four cost centers with a combined annual budget of over two million dollars.

Director of MN Operations

Tetra Tech EM, Inc. – September 1999 to November 2001

With Tetra Tech, Dr. Ferris was primarily involved with natural resource and water resource oriented projects and specialized in soil science, hydrology, watershed management and wetland science. She worked on TMDLs (including a mercury study in the St. Louis River estuary, a project with the Illinois EPA, and an MPCA project involving the Minnesota River), the Lake Superior Watershed Management Plan (for EPA Region 5), a critical ecosystem study for EPA Region 5, and a USFS fuels reduction project with the Mark Twain National Forest in Missouri. She has been involved with a soil inventory and hydrology analysis for the South Washington Watershed District along County Road 19 in the Twin Cities area and several large wetland delineation and permitting projects. In addition, Dr. Ferris was the regional project manager for Verizon Wireless (AirTouch Cellular) property assessment work.

President

Spatial Strategies, Inc. - April 1998 to 2002

Owner of company. SSI provided expertise on environmental and natural resource issues to other companies and/or agencies as needed under regulations such as NEPA and the Wetland Conservation Act. Specialized in soil science, hydrology, watershed management and wetland science. Projects included working with Scott County, MN and the MN Department of Natural Resources to complete a management plan and natural resources inventory of the Sand Creek corridor as part of the Metro Greenways Program and several large wetland permitting and mitigation projects.

Temporary Faculty Member	<p>University of Wisconsin – River Falls - August 1999 to May 2000</p> <p>Department of Plant and Earth Sciences. Undergraduate Teaching: Introduction to Environmental Science, introductory level course that focuses on the interrelationships between humans and their environment.</p>
Assistant Professor	<p>Susquehanna University - August 1998 to August 1999</p> <p>Department of Geology and Environmental Science. Teaching: Environmental Geology, Wetlands, Watershed Management and Hydrology, and Remote Sensing. Planned and conducted a number of field trips to sites in Pennsylvania. Developed new laboratory materials for the courses. Major advisor for 14 students in the Environmental Science program. Responsible for 7 senior research students and was a secondary advisor for 2 others. Provided placement assistance for graduates in public and private sectors. Acted as the coordinator/contact for the Duke University 3/2 program at SU.</p>
Program Director/ Soil Scientist/ Wetland Scientist	<p>Summit Envirosolutions, Inc. - May 1992 to June 1998</p> <p>Director of the Natural Resources Program. Duties included: development of the Natural Resource Program in five offices nationwide, training personnel, mentoring junior staff, business development and marketing, management of large projects (EIS, EA, EAW), performing work associated with soil, wetland and hydrology issues on large projects, serving as the soil science resource for the company, providing expert witness services in natural resources, overseeing wetland assessment/mitigation design projects, performing permit negotiations for natural resource projects, conducting agricultural pesticide research, and serving as Principal Investigator for a five year NASA EOCAP project entitled "Integration of Geographic Technologies for Groundwater Resource Management". Large projects included GLP groundwater studies, an emergency response involving a benzene/hydrocarbon spill into a riverine system near an urban area (noted as the third largest hazardous materials release in the U.S.), large housing and golf course developments, several EA/EIS documents for utility corridor projects in the western U.S., a mining permit in the eastern U.S. and a RCRA Facility Investigation in the central U.S.</p>
Soil Physicist/Hydrologist	<p>Strgar-Roscoe-Fausch, Inc. - March 1991 to May 1992</p> <p>Soil physicist/hydrologist. Duties included: authoring natural resource analysis and assessment portions of environmental review documents and applying federal, state and local regulations to those issues; conducting wetland and floodplain assessments, performing prime and unique farmland analyses, investigating erosion/sedimentation in relation to surface water runoff and water quality issues, performing Phase I Environmental Audits, providing supporting information on soil physical, biological and chemical properties as needed, providing recommendations to the MN Department of Transportation regarding methodologies used in planting areas that resulted in an increased success rate within those areas, and investigating soil in relation to surficial/bedrock geology and the susceptibility to water quality problems.</p>

TRAINING/CERTIFICATION

Licensed Soil Scientist in Minnesota (#30005)
Certified Professional Soil Scientist (#11630)
Minnesota Erosion and Sediment Control Certification
Soil Erosion and Sediment Control Certification (MPCA) (#1068)
Wetland Delineator Certification Training
Good Laboratory Practices/Small Scale Prospective Groundwater Monitoring Studies
OSHA Hazardous Materials Training

RECENT PUBLICATIONS/PRESENTATIONS

As part of her previous and current work, Dr. Ferris has done and still does presentations frequently with varying audiences/agencies and the general public. She also writes articles for the SSSA/ASA publications and maintains a blog "Wired for Soils". During her consulting career many presentations and publications were given to clients that were not allowed for public distribution.

Gorney, R.M., M.G. Williams, **D.R. Ferris**, and L.R. Williams. 2012. The Influence of Channelization on Fish Communities in an Agricultural Coldwater Stream System. *American Midland Naturalist* 168:133-144.

Verry, E.S., K.N. Brooks, D.S. Nichols, **D.R. Ferris**, and S.D. Sebestyen. 2011. Watershed Hydrology. Chapter 7. In: Kolka, R. K.; S. D. Sebestyen, E. S. Verry, and K. N. Brooks, eds. *Peatland biogeochemistry and watershed hydrology at the Marcell Experimental Forest*. Boca Raton, FL: CRC Press: 193-212.

R.M Gorney, **D.R. Ferris**, A.D. Ward and L.R. Williams. 2011. Assessing Channel-Forming and Equilibrium Characteristics of an Impacted Headwater Stream in Ohio, USA. *Ecological Engineering*.37: 418-430.

Havlin, J, N. Balster, **D. Ferris**, S. Chapman, T. Smith, and T. Thompson. 2010. Trends in Soil Science Education and Employment. *Soil Sci. Soc. Am. J.* 74: 1429-1432.

D.R. Ferris, J.A. Hattey, and M.D. Mullen. 2010. The Soil Science Profession: Investment, Vestment and Validation. *Soil Sci. Soc. Am. J.* 74: 453-460.

D.R. Ferris. 2009. Using the State of the Practice to Teach Soil Physics. **Invited Paper**. ASA-CSSA-SSSA Annual Meeting Nov. 1-5, 2009 in Pittsburgh, PA.

D.R. Ferris. 2009. Program Assessments and National Exams: Finding Common Ground. **Invited Paper**. ASA-CSSA-SSSA Annual Meeting Nov. 1-5, 2009 in Pittsburgh, PA.

Havlin, J, N. Balster, **D. Ferris**, S. Chapman, T. Smith, and T. Thompson. 2009. Trends in Soil Science. Presented at the ASA-CSSA-SSSA Annual Meeting Nov. 1-5, 2009 in Pittsburgh, PA.

D.R. Ferris. 2009. Science and Policy Considerations for Watershed Management. School of Environment and Natural Resources – Ohio State University Fall Seminar Series. October 2009.

Colwell, S. and **D. Ferris**. Characterization of Flatiron Lake Bog, Portage County, OH. Society of American Foresters Conference. Nov. 2008

D.R. Ferris, “Soil Science Fundamentals Exam: Exam Prep Course. American Society of Agronomy Meetings. Oct. 5-9, 2008 in Houston, TX.

D.R. Ferris, “Watersheds: An Intersection of Science and Policy”, Presentation to the OSU-OARDC Horticulture Department – Wooster Campus, May 2008.

Gorney, R., L. Williams, and **D. Gibas-Ferris**. Assessment of the Restoration of a Coldwater Stream: A matter of scale. Midwest Ecology and Evolution Conference. March 2008.

Gorney, R., L. Williams, and **D. Gibas-Ferris**. Assessment of the Restoration of a Coldwater Stream: A matter of scale. Ohio Fish and Wildlife Management Association Conference. Feb. 2008.

D.R. Gibas-Ferris and M.D. Mullen, “Soil Science Licensing and Certification: A Look at the Importance of National Examinations in the Longevity of the Soil Science Profession”. American Society of Agronomy meetings, Nov 4-8, 2007 in New Orleans, LA.

Mullen, M.D. and **D.R. Gibas-Ferris**, “Trends in Soil Science Education and Career Choices: Where do we go from here?” American Society of Agronomy meetings, Nov 4-8, 2007 in New Orleans, LA.

UNITED STATES PATENTS

“Measuring System for Measuring Real Time Groundwater Data” #5,553,492 granted September 1996.