

John S. Gulliver, Ph. D., P. E.
Department of Civil Engineering
University of Minnesota
Curriculum Vitae

October 2010

PROFESSIONAL EXPERIENCE

3/98 – 6/07 Head, Department of Civil Engineering, University of Minnesota.
10/97-3/98 Acting Head, Department of Civil Engineering, University of Minnesota.
6/96 - present Professor, Department of Civil Engineering, University of Minnesota.
6/88 - present Registered Professional Civil Engineer, State of Minnesota, No. 20045.
9/87 - 9/96 Associate Professor, Department of Civil Engineering, University of Minnesota.
9/81 - 9/87 Assistant Professor, Department of Civil Engineering, University of Minnesota.
6/80 - 9/81 Research Associate, St. Anthony Falls Hydraulic Laboratory, Department of Civil Engineering, University of Minnesota.

HONORS AND AWARDS

CTS Scholar, 2007 – present
Rickey Medal, 2003. American Society of Civil Engineers. Award given for a career of research and education related to hydroelectric energy.
Joseph S. and Rose T. Ling Professor of Civil Engineering, 1999 - 2009.
Fellow, American Society of Civil Engineers, 1995 - Present
Rickey Medal, 1990. American Society of Civil Engineers. Award given to the ASCE Technical Committee in recognition of contribution to “Civil Engineering Guidelines for Planning and Designing Hydroelectric Developments.”
Alvin G. Anderson Award, 1977. Annual award given for academic achievement in water resources engineering at the University of Minnesota.

PRINCIPAL RESEARCH ACTIVITIES

Major research interests are environmental fluid mechanics, chemical transport and fate in environmental systems, and flow and mass transport at hydraulic structures. Current research predominantly involves chemical transport and interfacial mass transfer, which is crucial to the development of lake and wastewater aerators; the prediction of volatile toxic compound transfer from lakes and oceans; the prediction of steam reaeration; and the mitigation of groundwater and sediment pollution. Specific research projects include the development of new technology for stormwater treatment and assessment of field performance of stormwater treatment practices. He is co-editor with Dr. Pete Weiss and Andrew Erickson of the on-line manual, “Stormwater Treatment: Assessment and Maintenance.”

EDUCATION

B.S., 1974, Chemical Engineering, University of California, Santa Barbara
M.S., 1977, Civil Engineering, University of Minnesota
Ph.D., 1980, Civil Engineering, University of Minnesota

EXPERIENCE:

Fulbright Scholar, University of Chile, Santiago, 2005
Visiting professor, Departamento de Hidraulica Sanoamento Escola de Engenharia de Sao Carlos, Universidade de Sao Paulo, Sao Carlos, Brazil, 1997
Visiting professor, Institut für Hydrologie und Wasserwirtschaft, Universität Karlsruhe, Karlsruhe, Germany, 1994
Visiting professor, Department of Chemical Engineering, Louisiana State University, Baton Route, La., 1994

Visiting scientist, Reservoir Water Quality Branch, Hydraulics Laboratory, Waterways Experiment Station, U.S. Army Corps of Engineers, Vicksburg, Miss., 1990

Registered professional civil engineer, Minnesota, No. 20045, 1988

Research associate, University of Minnesota, 1980-81

Chemical engineer, Federal Power Commission, 1974

GRADUATE SUPERVISION:

13 Doctor of Philosophy degrees

46 Masters degrees

20 Undergraduate Research Assistants

SELECTED PUBLICATIONS:

Four books authored or edited, including:

Gulliver, J.S., *Introduction to Chemical Transport in the Environment*, Cambridge University Press, Cambridge, UK, 2007.

Two on-line manuals, including:

Stormwater Treatment: Assessment and Maintenance, Gulliver, J.S., A.J. Erickson and P.T. Weiss, Eds., St. Anthony Falls Laboratory, University of Minnesota, Minneapolis, MN, 2009.

<http://stormwater.saf.umn.edu/108> Journal articles, including:

1. Parkhill, K.L. and J.S. Gulliver, "Application of Photorespiration Concepts to Whole-Stream Productivity," *Hydrobiologica*, 389:7-19, 1998.
 2. Parkhill, K.L. and J.S. Gulliver, "Modeling the effect of light on whole-stream respiration," *Ecological Modeling*, 117:333-342, 1999.
 3. Sinokrot, B.A. and J.S. Gulliver, "In-stream flow impact on river water temperatures," *Journal of Hydraulic Research*, 38(5), 339-350, 2000.
 4. Parkhill, K.L. and J.S. Gulliver, "The effect of inorganic sediment on whole-stream productivity," *Hydrobiologica*, 472: 5-17, 2002.
 5. Weiss, P.T., A.J. Erickson and J.S. Gulliver, "Cost and pollutant removal of storm-water treatment practices," *Journal of Water Resources Planning and Management*, 133(3), 218-229, 2007.
 6. Erickson, A.J., J.S. Gulliver and P.T. Weiss, "Enhanced Sand Filtration for Storm Water Phosphorus Removal," *Journal of Environmental Engineering*, 133(5), 485-497, 2007.
 7. Abdul -Aziz, O.I., B.N. Wilson and J.S. Gulliver, "An Extended Stochastic Harmonic Analysis (ESHA) Algorithm: Application for Dissolved Oxygen," *Water Resources Research*, 43, W08417, doi:10.1029/2006WR005530, 2007.
 8. Kang, J.H., P.T. Weiss, C.B. Wilson and J.S. Gulliver, "Maintenance of Stormwater BMPs: Frequency, Effort and Cost," *Stormwater*, 9(8), pp. 18-28, November/December 2008.
 9. Wilson, M. A., O. Mohseni, J. S. Gulliver, R. M. Hozalski and H.G. Stefan, "Assessment of hydrodynamic separators for stormwater treatment," *Journal of Hydraulic Engineering*, 135, Issue 5, pp. 383-392, 2009.
 10. Asleson, B.C., R.S. Nestingen, J.S. Gulliver, R.M. Hozalski, and J.L. Nieber, "Assessment of Rain Gardens by Visual Inspection and Controlled Testing," *Journal of the American Water Resources Association*, 45(4), 1019-1031, 2009.
- 63 conference proceedings, including:
1. Weiss, M. Hondzo, J.S. Gulliver, M.J. Semmens, and D. Biesboer, "Laboratory Measurements of Stormwater Quality Improvements in Detention Ponds – Phytoremediation Study," International Conference on Contaminated Soils, Sediments, and Water, University of Massachusetts, Amherst, MA, October 2002.
 2. Wilson, M.A., J.S. Gulliver, O. Mohseni and R.M. Hozalski, Assessing the Effectiveness of Stormwater Treatment Devices, World Congress of the Environmental and Water Resources Institute, Tampa Bay, FL, May 15-19, 2007.
 3. Erickson, A.J., J.S. Gulliver, P.T. Weiss, and R.M. Hozalski. A New Approach for Assessing the Performance of Stormwater BMPs, World Environmental and Water Resources Congress, May 15-19, 2007, Tampa, FL.

4. Nestingen, R.S., B. C. Asleson, J. S. Gulliver and J. N. Nieber, Techniques to Assess Rain Gardens as Stormwater Best Management Practices, Stormwater and Urban Water Systems Modeling Conference, Toronto, Canada. February 22-23, 2007.
 5. Asleson, B. C. , R. S. Nestingen, J. S. Gulliver, R. M. Hozalski and J. L. Nieber, Performance Assessment of Low Impact Stormwater Practices, World Environmental and Water Resources Congress, May 12-16, 2008, Honolulu, HI.
 6. Gulliver, J.S. for the Scaling Sub-Committee, "Scaling relations for manufactured stormwater BMPs," World Environmental and Water Resources Congress, May 12-16, 2008, Honolulu, HI.
 7. DeGroot, G.P., J.S. Gulliver and O. Mohseni, "Accurate Sampling of Suspended Solids," Stormcon '09, Anaheim, CA, August 17-20, 2009.
 8. Hettler, E. and J.S. Gulliver, "Settling Velocity Distribution in Urban Stormwater Runoff," 7th International Urban Watershed Management Conference, Auckland, New Zealand, February 21 - 24, 2010.
 9. Erickson, A.J., J. S. Gulliver, P. T. Weiss, and B. J. Huser, "Enhanced Sand Filtration for Storm Water Phosphorus Removal," 7th International Urban Watershed Management Conference, Auckland, New Zealand, February 21 - 24, 2010.
- 52 project reports, including:
1. The Cost and Effectiveness of Stormwater Management Practices, by P. T. Weiss, J. S. Gulliver and A. J. Erickson, Minnesota Department of Transportation Report 2005-23, June 2005.
<http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=1023>
 2. Water Quality Performance of Dry Detention Ponds with Underdrains, by C. F. Hussain, J. Brand, J. S. Gulliver, and P. T. Weiss, Minnesota Department of Transportation Report 2006-43, December 2006.
<http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=1120>
 3. Development and Application of a Four-Level Rain Garden Assessment, by B.C. Asleson, R.S. Nestingen, J.S. Gulliver, R.M. Hozalski, and J.L. Nieber, SAFL Project Report 494, July 2007.
<http://home.safl.umn.edu/bmackay/pub/pr/pr501.pdf>
 4. Performance Assessment of Underground Stormwater Treatment Devices, by M. A. Wilson, O. Mohseni, J. S. Gulliver, R. M. Hozalski, Minnesota Department of Transportation Report 2007-46, November 2007. <http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=1552>
 5. Contamination of Soil and Groundwater Due to Stormwater Infiltration Practices, by Peter T. Weiss, Greg LeFevre and John S. Gulliver. SAFL Project Report 515, June 2008.
<http://library.safl.umn.edu/docs/pr/pdf/pr515.pdf>