

Gregory W. Characklis

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EDUCATION:

Ph.D. Environmental Science and Engineering, Rice University, Houston, TX, 1999.
M.S. Environmental Science and Engineering, Rice University, Houston, TX, 1994.
B.S. Materials Science and Eng., Johns Hopkins University, Baltimore, MD, 1989.

PROFESSIONAL POSITIONS:

Assoc. Editor Water Resources Research, 2003- .
Assoc. Professor University of North Carolina, Chapel Hill, NC, 2007- .
Asst. Professor University of North Carolina, Chapel Hill, NC, 2001-2007.
Director Resource Development & Mgmt, Azurix Corp., Houston, TX, 1999–01.
Fellow National Academy of Engineering, Washington, DC, 1997-99.
Research Asst. Department of Environmental Science and Engineering, Rice University, Houston, TX, 1992–97.
Assoc. Scientist EG&G Idaho, Inc., Idaho National Engineering and Environmental Laboratory (INEEL), Idaho Falls, ID, 1990–91.

PUBLICATIONS RELEVANT TO THE PROPOSED ACTIVITIES:

Krometis, L. A., Drummey, P. N., Characklis, G. W. and M. D. Sobsey. "The Impact of Microbial Partitioning on Wet Retention Pond Effectiveness," *Journal of Environmental Engineering*. (in press)

Cizek, A. R., Characklis, G. W., Krometis, L. A., Hayes, J. A., Simmons, O. D., DiLonardo, S., Alderisio, K. A. and M. D. Sobsey (2008). "Comparing the Partitioning Behavior of *Giardia* and *Cryptosporidium* with that of Indicator Organisms in Stormwater Runoff," *Water Research* , 42, pp. 4421-4438.

Fries, J. S., Characklis, G. W. and R. T. Noble (2008). "Sediment-Water Exchange of *Vibrio sp.* and Fecal Indicator Bacteria: Implications for Persistence and Transport in the Neuse River Estuary, North Carolina, USA," *Water Research*, 42, pp. 941-950.

Fries, J. S., Noble, R. T., Paerl, H. W. and G. W. Characklis (2007). "Particle Suspension as Indicators of Estuarine Water Quality in the Neuse River Estuary," *Estuaries & Coasts*, 30(2), pp. 359-364.

LoBuglio, J. N., Characklis, G. W. and M. L. Serre (2007). "Cost-effective Water Quality Assessment through Integration of Monitoring Data and Modeling Results," *Water Resources Research*, 43(3), W03435.

Krometis, L. A., Characklis, G. W., Simmons, O. D., Dilts, M. J., Likirdopulos, C. A., and M. D. Sobsey (2007). "Intra-Storm Variability in Microbial Partitioning and Microbial Loading Rates", *Water Research*, 41, pp. 506-516.

Fries, J. S., Characklis, G. W. and R. T. Noble (2006). "Attachment of Fecal Indicator Bacteria to Particle Suspensions in Neuse River Estuary, North Carolina, USA," *Journal of Environmental Engineering*. 132(10), pp. 1338-1345.

Characklis, G. W., Dilts, M. J., Simmons, O. D., Likirdopulos, C. A., Krometis, L. A., and M. D. Sobsey (2005). "Microbial Partitioning to Settleable Particles in Stormwater", *Water Research*, 39, pp. 1773-1782.

Characklis, G. W. and M. R. Wiesner (1997). "Particles, Metals, and Water Quality in Runoff from a Large Urban Watershed", *Journal of Environmental Engineering*, 123(8), pp. 753-759.

OTHER PUBLICATIONS OF INTEREST

- Kirsch, B. R., Characklis, G. W., Dillard, K. E. M. and C. T. Kelley. "More Efficient Optimization of Long-term Water Supply Portfolios," *Water Resources Research*. (in press)
- Characklis, G. W., Kirsch, B. R.^D, Ramsey, J.^M, Dillard, K. E. M. and C. T. Kelley (2006). "Developing Portfolios of Water Supply Transfers", *Water Resources Research*, 42(5), W05403.
- Characklis, G. W., Griffin, R. C. and P. B. Bedient (2005). "Measuring the Long-term Regional Benefits of Salinity Reduction", *Journal of Agricultural and Resource Economics*, 30(1), pp. 69-93.
- Characklis, G. W. (2004). "Interface of Water Resource Engineering with Economics and Public Policy", *Frontiers of Engineering*, National Academy Press, Washington, D.C., pp. 11-18.

RECENT PROJECTS

- "Operating Policies and Administrative Procedures Governing Operations of the John H. Kerr Project on the Roanoke River", North Carolina Department of Environment and Natural Resources, \$74,282; 09/08 – 04/09, *co-Principal Investigator* (PI: Richard Whisnant).
- "Linkage of bacterial pathogens to human infectious disease in an estuary subjected to extreme climatic events", National Science Foundation, \$1,527,139, 9/08 – 08/12, *co-Principal Investigator* (PI: Rachel Noble).
- "North Carolina Water Allocation Study", North Carolina Environmental Review Commission, \$100,000, 1/08 – 12/08, *co-Principal Investigator* (PI: Richard Whisnant).
- "Promoting North Carolina's Economic Development through Strategic Water Resource Management", North Carolina Research Competitiveness Fund, \$246,000, 12/07 – 12/08, Principal Investigator.
- "Evaluating Pathogen Partitioning in New York City Water Supply Reservoirs", U.S. Environmental Protection Agency/New York City Department of Environmental Protection, \$385,000, 8/06 – 9/07, *Principal Investigator*.
- "Developing a Total Maximum Daily Load for a Biologically Impaired Waterbody", U.S. Environmental Protection Agency/North Carolina Dept. of Environment and Natural Resources, \$200,000, 7/06 – 6/09, *Principal Investigator*.
- "Identifying the Origins and Attachment Behavior of Non-point Source Microbial Contaminants", North Carolina Water Resources Research Institute/North Carolina Urban Water Consortium, \$49,000, 7/05 – 12/06, *Principal Investigator*.
- "Impacts of Anthropogenic Change on the Ecology of Human Pathogens in a Eutrophic Estuary", National Science Foundation/National Institutes of Health, \$1,796,000, 9/03 – 8/08, *co-Principal Investigator* (PI: Crawford-Brown, D.).
- "Impact of Microbial-Particle Interaction on Microbial Fate and Transport in Stormwater", North Carolina Dept. of Environment and Natural Resources, \$75,000, 6/03-5/04, *Principal Investigator*.

SYNERGISTIC ACTIVITIES:

- Associate Editor, *Water Resources Research* (2003 -)
- Reviewer of manuscripts and grant proposals: National Science Foundation, *Advances in Water Resources*, *Environmental Engineering Science*, *Environmental Science and Technology (ES&T)*, *Journal of the American Water Resources Association*, *Journal of Environmental Engineering*, *Journal of Environmental Management*, *Journal of Industrial Ecology*, *Journal of Water Resources Planning and Management*, *Optimization*, *Water International*, *Water Research*, *Water Resources Research*
- Chair, ASCE Environmental and Water Resources Committee, 2007-8
- Member, Technical Advisory Committee, NC Water Resources Research Institute (2006 -).