S. Kyle McKay

248 Georgia Ave. Athens, GA 30606 Office: 601-415-7160

Email: Kyle.McKay@usace.army.mil

Kyle is a research civil engineer with the U.S. Army Engineer Research and Development Center (ERDC) Environmental Laboratory (EL). Prior to joining EL, he received a B.S. in Environmental Engineering from Colorado State University and an M.S. in Civil Engineering from



University of Illinois Urbana-Champaign. Since joining ERDC in 2007, his research has focused broadly on examining ecological effects of water resources infrastructure. Some of his projects have addressed quantifying environmental benefits of ecosystem restoration, fish passage improvement, environmental flow management, vegetation-flow interaction, and the effects of woody vegetation on levee integrity. Kyle recently completed his PhD at the University of Georgia's Odum School of Ecology, where his doctoral research focused on managing freshwater for ecological objectives. Currently, he is working on methods for quantifying hydrologic connectivity (e.g., fish passage, sediment continuity) and assessing trade-offs in flow management (i.e., environmental flows). He is stationed in Athens, Georgia to facilitate cooperative research between ERDC, the University of Georgia, and EPA Ecosystem Research Division.

Recent Publications

- McKay S.K., Freeman M.C., and Covich A.P. Application of effective discharge analysis to environmental flow decision making. Submitted to *Environmental Management*.
- **McKay S.K.** Quantifying trade-offs associated with hydrologic environmental flow methods. Submitted to *Journal of the American Water Resources Association*.
- **McKay S.K.** Visualizing long-term data: A case study of hydrologic variability. Submitted to *River Research and Applications*.
- McKay S.K., Schramski J.R., Conyngham J.N., and Fischenich J.C. 2013. Assessing upstream fish passage connectivity with network analysis. *Ecological Applications*, 23 (6), 1396-1409.
- Stone M.C., Chen L., **McKay S.K.**, Goreham J., Acharya K., Fischenich C., and Stone A.B. 2013. Bending of submerged woody riparian vegetation as a function of hydraulic flow conditions. *River Research and Applications*, 29 (2), 195-205. doi: 10.1002/rra.1592.
- McKay S.K. 2013. Alternative environmental flow management schemes. ERDC TN-EMRRP-SR-46. U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi. 18 pp.
- Pruitt B.A. and **McKay S.K.** 2013. Integration of stream flow duration with hydraulic geometry in the Southern Piedmont. 2013 Georgia Water Resources Conference, Athens, Georgia.
- Fischenich J.C., **McKay S.K.**, Miller S.J., Price D., Pruitt B.A., Skaggs L.L., Suedel B.C., and Tazik D. 2013. Science-based framework for environmental benefits assessment. ERDC EL TR-13-4. U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi.
- McKay S.K., Linkov I., Fischenich J.C., Miller S.J., and Valverde L.J. 2012. Ecosystem restoration objectives and metrics. ERDC TN-EMRRP-EBA-16. U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi.
- Schultz M.S., **McKay S.K.**, and Hales L.Z. 2012. The quantification and evolution of resilience in integrated coastal systems. ERDC TR-12-7. Flood and Coastal Storm Damage Reduction Program. U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi.