

Heather E. Golden, Research Physical Scientist, in EPA's National Exposure Research Laboratory

Systems Exposure Division

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Area of Expertise: My primary area of research involves understanding and modeling the effects of watershed-scale hydrological and biogeochemical processes on aquatic ecosystems. I specifically focus on how variations in land use, land management, and climate mediate water quantity, water quality, and aquatic ecosystem processes.

Select Publications:

- Cohen, MJ, IF Creed, L Alexander, N Basu, A Calhoun, C Craft, S DeKeyser, S Faulkner, L Fowler, HE Golden, JW Jawitz, K Kirkman, CR Lane, M Lang, S Leibowitz, DB Lewis, J Marton, DL McLaughlin, D Mushet, H Ranaan Kiperwas, MC Rains, L Smith. 2016. Do Geographically Isolated Wetlands Influence Landscape Functions? *Proceedings of the National Academy of Sciences*. doi: 10.1073/pnas.1512650113.
- Golden, HE, HA Sander, CR Lane, C Zhao, K Price, E D'Amico, and JR Christensen. 2016. Relative effects of geographically isolated wetlands on streamflow: A watershed-scale analysis. *Ecohydrology*. 9(1): 21-38.
- Rains, MC, SG Leibowitz, MJ Cohen, IF Creed, HE Golden, JW Jawitz, P Kalla, CL Lane, MS Lang, DL McLaughlin, H Ranaan Kiperwas. 2016. Geographically isolated wetlands are part of the hydrological landscape. *Hydrological Processes* [Invited Commentary]. 30(1): 153-160.
- Evenson, GR, HE Golden, CR Lane, and E D'Amico. 2015. Geographically isolated wetlands and catchment hydrology: A modified model analysis. *Journal of Hydrology*. 529: 240-256
- Beaulieu, JJ, HE Golden, CD Knightes, PM Mayer, SS Kaushal, MJ Pennino, CP Arango, DA Balz, CM Elonen, KM Fritz, BH Hill. 2015. Urban stream burial increases watershed nitrate export. *PLOS ONE*. DOI: 10.1371/journal.pone.0132256.
- Golden, HE, CR Lane, DM Amatya, KW Bandilla, H Raanan-Kiperwas, CD Knightes, and H Ssegane. 2014. Hydrologic connectivity between geographically isolated wetlands and surface water systems: A review of select modeling methods. *Environmental Modelling and Software*. 53(0): 190-206.

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Education:

- Ph.D., Forest Hydrology/Watershed Management, 2007, State University of New York, College of Environmental Science and Forestry
- M.A., Physical Geography and Geomorphology, 1998, East Carolina University
- B.S., Earth Science (Minor: Biology), 1995, Frostburg State University

Professional Experience:

- Research Physical Scientist, USEPA, 2010 to Present
- Postdoctoral Physical Scientist, USEPA, 2007 to 2010
- Research Fellow, USEPA Greater Research Opportunities, 2004 to 2007
- Teaching Fellow, National Science Foundation, 2003 to 2004
- Research Assistant, New York City Watershed Agricultural Council, 2002 to 2003
- Watershed Planning Specialist, Western Pennsylvania Conservancy, 2002
- Environmental Scientist, Mackin Engineering Company, 2000 to 2002

Honors and Awards:

- US EPA Scientific and Technological Achievement Award (STAA), Level III, 2015
- US EPA Office of Research and Development Award for Program Office Support, October 2014
- US EPA Scientific and Technological Achievement Award (STAA), Honorable Mention, 2012