

# Eliot S Meyer, PhD

Senior Engineer



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## Expertise

Integrated management of reservoir systems, quantification and management of environmental financial risks, analysis of water resources uncertainty under climate change

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## Education

PhD, Environmental Engineering, University of North Carolina at Chapel Hill, 2017  
M.S.E.E., Environmental Engineering, University of North Carolina at Chapel Hill, 2012  
B.S., Civil Engineering, University of Texas at Austin, 2009  
B.A., Plan II Honors Program, University of Texas at Austin, 2009

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## Registrations & Affiliations

Engineer in Training, State of Texas, 2009

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## Professional History

Senior Engineer, HydroLogics, Inc., 2016-present  
Research Assistant, University of North Carolina at Chapel Hill, 2010-2017

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## Project Experience

### **Mystic, CT**

#### **Aquarion Water Company (2017-present)**

Developed a basin operations model, which has been used to optimize reservoir and diversion operations. The model has also been used for testing operations and safe yield under proposed minimum releases.

### **Norwalk, CT**

#### **Aquarion Water Company (2017-present)**

Developed a basin operations model, which has been used to optimize reservoir and diversion operations, to test safe yield under proposed minimum releases, and to develop forecast based drought triggers.

### **Apalachicola-Chattahoochee-Flint and Alabama-Coosa-Tallapoosa River Basins, Atlanta Regional Commission (2017-present)**

Provide ongoing modeling and analysis support to the Atlanta Regional Commission, including developing system demand forecasts

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## Publications, Reports, and Presentations

**Meyer, E.S., Characklis, G.W., Brown, C.** Evaluating financial risk management strategies under climate change for hydropower producers on the Great Lakes. *Water Resources Research*. 2017,53, doi:10.1002/2016WR019889

- Meyer, E.S.**, Characklis, G.W., Brown, C., Moody, P. Hedging the financial risk from water scarcity for Great Lakes shipping. *Water Resources Research*. 2015, 52:1, 227-245.
- Attayek, P.J., **Meyer, E.S.**, Lin, L., Rich, G.C., Clegg, T.B., Coronell, O. A remotely-controlled, semi-automatic target system for Rutherford backscattering spectrometry and elastic recoiled detection analyses of polymeric membrane samples. *Nuclear Instruments and Methods in Physics A*. 2012, 676, 21-25.
- Meyer, E.S.**, Characklis, G.W., Foster, B.T. Integrating physical and financial approaches to manage environmental financial risk. Presented at *European Geosciences Union*, Vienna, Austria, April 23-28, 2017.
- Meyer, E.S.**, Characklis, G.W., Brown, C., Moody, P. Mitigating the Financial Risk of Low Water Levels of Hydropower Producers under Climate Change (presentation). Presented at *World Environmental & Water Resources Congress*, West Palm Beach, FL, May 23-26, 2016.
- Baum, R, Foster, B, Hise, A., Kern, J., **Meyer, E.**, Su, Y., Zeff, HB. Financial Risk in a Changing Climate: Tools for reducing exposure to hydrologic variability (poster). Presented at *UNC Climate Change Symposium*. Chapel Hill, NC, April 10, 2015.
- Meyer, E.S.**, Characklis, G.W., Brown, C., Moody, P. Index insurance and water scarcity: Managing financial risk in commercial navigation on the Great Lakes (presentation). Presented at *AGU Fall Meeting 2014*, San Francisco, CA, December 12-18, 2014.
- Characklis, G.W., Foster, B.T., Kern, J.D., **Meyer, E.S.**, Zeff, H.B. Integrating Engineering, Science and Economics to Manage Environmental Financial Risk (poster). Presented at *National Academy of Sciences' Frontiers of Science Meeting*, Irving, CA, November 20, 2014.
- Meyer, E.S.**, Characklis, G.W. Vulnerability of hydropower to low water levels in the Great Lakes (presentation). Presented at *Hydro Fellows Roundtable, Hydrovision 2014*, Nashville, TN, July 22-25, 2014.
- Meyer, E.S.**, Characklis, G.W. Index Insurance and Water Scarcity: Managing Financial Risk in Commercial Navigation on the Great Lakes (presentation). Presented at *Nexus 2014: Water, Food, Climate and Energy Conference*, Chapel Hill, NC, March 5-8, 2014.
- Meyer, E.S.**, Lin, L., Clegg, T.B., Coronell, O. Nanofiltration and Reverse Osmosis Membrane Support Degradation Due to Ion Beam Irradiation during Rutherford Backscattering Spectrometry Analysis (poster). Presented at the 2014 *North American Membrane Society (NAMS) Meeting*, Houston, TX, May 31-June 4, 2014.
- Attayek, P.J., **Meyer, E.S.**, Lin, L., Rich, G.C., Wang, J., Clegg, T.B., Coronell, O. A sample stage for remotely-controlled, semi-automatic analysis of polymeric membrane samples using Rutherford backscattering spectrometry (poster). Presented at the 2014 *North American Membrane Society (NAMS) Meeting*, Houston, TX, May 31-June 4, 2014.
- Meyer, E.S.**, Coronell, O. Applying Rutherford Backscattering Spectroscopy to Characterize the Active Layers of Water Treatment Membranes (poster). Presented at *the*

*Nuclear Physics Seminar Series*, University of North Carolina at Chapel Hill, January 31, 2011.

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Affiliations

American Water Resources Association