

**Theodore A. Endreny, Ph.D., P.H., P.E.**

Department of Environmental Resources Engineering  
State University of New York (SUNY), College of Environmental Science & Forestry (ESF)  
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**Professional Preparation:**

Cornell University	Natural Resources Management	B.S. 1990
North Carolina State University	Soil & Water Engineering	M.S. 1996
Princeton University	Water Resources Engineering	Ph.D. 1999
Channel Design Training	ASCE & FEMA courses	1wk 2001
Stream Restoration Training	US Fish & Wildlife courses	4wks 2002-3

**Appointments:**

Professor & Chair	ESF, Environmental Resources Engineering	2011-present
Distinguished Chair	Parthenope University, Naples Italy	Jan-Jun 2016
Professor	ESF, Environmental Resources Engineering	2009-present
Visiting Professor	U of Cyprus, Civil & Environmental Engineering	2005-2006
Associate Professor	ESF, Environmental Resources & Forest Engineering	2005-2009
Assistant Professor	ESF, Environmental Resources & Forest Engineering	1999-2005
Research Scholar	National Aeronautics & Space Administration GSRP	1997-1999
Research Scholar	Environmental Protection Agency EMAP	1994-1996
Research Associate	Environmental Law Institute, Washington DC	1992-1994
Volunteer	U.S. Peace Corps & Honduras Forest Service	1990-1992

**Licenses:**

Professional Hydrologist (PH) 1559, American Institute of Hydrology	2002-present
Professional Engineer (PE) 079912, The State of New York	2002-present

**Research Publications:**

In Preparation

- Endreny, T.A., and A. Facchini, "Megacity Cooling with Urban Trees", *Journal of Cleaner Production*, 2017
- Endreny, T.A., S. Ulgiati, and D. Nowak, "Tree Cover Estimates for Megacities", possibly *Urban Forestry and Urban Greening*, 2017
- Endreny, T.A., and S. Ulgiati, "Megacity Stormwater Management with Urban Trees", possibly *Urban Forestry and Urban Greening*, 2017
- Fabian\*, M.W., and T.A. Endreny, "Tracking Aqueous Geochemical Patterns across Varying Streamflows in a Tropical Mountain Stream", possibly *International Waters*, 2017
- Taggart\*, T., S. Conley, J. Fawcett, D. Nowak, and T.A. Endreny, "Modular Object Oriented Design of a Hydrological Model", possibly *Environmental Modeling & Software*, 2017
- Taggart\*, T., and T.A. Endreny, "Development-based Topographic Index: Modifying the Tools of the Countryside for Application within the City", possibly *Hydrological Processes*, 2017
- Stephan\*, E., T.A. Endreny, "Temporal Adjustment of Nutrient Export Coefficient Loads using Precipitation Frequency", *Journal of Environmental Quality*, 2017

In Review

- Casazza, M., M. Lega, G. Liu, T.A. Endreny, and S. Ulgiati, "Effects and Possible Mitigation Actions of Water Cycle Vulnerability Related to Atmospheric Aerosol Pollution", *Journal of Cleaner Production*, 2017

- Endreny, T.A., S.K. Kwon\*, T. Williamson, and R. Evans, "Disturbance of Soil Macropores and Forest Cover May Reduce Warm Season Baseflow below Ecological Thresholds", *International Journal of River Basin Management*, 2017
- Nostra, R., and T.A. Endreny, "Green Infrastructure Microbial Fuel Cells for Capturing Energy from Polluted Stormwater", *Nature*, 2017
- Stires\*, A., and T.A. Endreny, "Variation in Soil Fertility with Elevation and Agroforestry Practice on a Hillslope in a Monsoon Climate of Costa Rica", *Agroecology and Sustainable Food Systems*, 2017
- Thapa\*, K., T.A. Endreny, and C.R. Ferguson, "Atmospheric Rivers Carry Non-monsoon Extreme Precipitation into Western Nepal", *Journal of Geophysical Research: Atmospheres*, 2017
- Zhou\*, T., and T.A. Endreny, "Isolating Curvature from Bedform as a Driver of Hydrodynamics and Hyporheic Flux in a Meander Bend: Computational Experiments", *Ecological Engineering*, 2017

Refereed (\* indicates my student, # indicates my advisor)

- Endreny, T.A., R. Santagata\*, A. Perna, C. De Stefano, R.F. Rallo, and S. Ulgiati, "Implementing and Managing Urban Forests: a Much Needed Conservation Strategy to Increase Ecosystem Services and Urban Wellbeing", *Ecological Modeling*, Vol. 360, 328-335, doi: 10.1016/j.ecolmodel.2017.07.016, 2017
- Ferrara, C., M. Lega, G. Fusco, P. Bishop, and T.A. Endreny, "Characterization of Terrestrial Discharges into Coastal Waters with Thermal Imagery from a Hierarchical Monitoring Program", *Water*, 9(7): 500, doi: 10.3390/w9070500 2017
- Maior, O., T. Endreny, and M. Lega, "Remote Sensing for Environmental Forensics: Thermal Infrared Images Capture Different Surface Temperatures in Pollutant Pools and Dosed Soils Due to Volatilization", *Environmental Forensics*, 18(2), 101-109, doi: 10.1080/15275922.2017.1304469, 2017
- Gualtieri, C., M. Ianniruberto, N. Filizola, R. Santos, and T.A. Endreny, "Hydraulic Complexity at a Large River Confluence in the Amazon Basin", *Ecohydrology*, e1863-n/a, doi: 10.1002/eco.1863, 2017
- Calderon MR, B.P., Baldigo, A.J. Smith, and T.A. Endreny, "Effects of Extreme Floods on Macroinvertebrate Assemblages in Tributaries to the Mohawk River, New York, USA" *River Resource Applications*, 2017;0:1-11. <https://doi.org/10.1002/rra.3158>, 2017
- Bodnaruk, E.W., C.N. Kroll, Y. Yang, and T.A. Endreny, "Where to Plant Urban Trees? A Spatially Explicit Methodology to Explore Ecosystem Service Tradeoffs", *Landscape and Urban Planning*, 157:457-467, DOI: 10.1016/j.landurbplan.2016.08.016, 2017
- Lega, M. and T.A. Endreny, "Quantifying the Environmental Impact of Pollutant Plumes from Coastal Rivers with Remote Sensing and River Basin Modeling", *International Journal of Sustainable Development and Planning*, 11(5):651-662, DOI: 10.2495/SDP-V11-N5-651-662, 2016.
- \*Stephan, E. and T.A. Endreny, "Weighting Nitrogen and Phosphorus Pixel Pollutant Loads to Represent Runoff and Buffering Likelihoods", *Journal of the American Water Resources Association*, 52(2): 336-349, DOI: 10.1111/1752-1688.12390, 2016.
- \*Yang, Y., T.A. Endreny, and D.J. Nowak. "Application of Advection-diffusion Routing Model to Flood Wave Propagation: a Case Study on Big Piney River, Missouri USA", *Journal of Earth Science* 27(1):9-14, DOI: 10.1007/s12583-016-0626-3, 2016.
- \*Han, B., H.H. Chu\*, and T.A. Endreny. "Streambed and Water Profile Response to In-channel Restoration Structures in a Laboratory Meandering Stream", *Water Resources Research*, 51(11): 9312–9324, DOI: 10.1002/2015WR017177, 2015.

- \*Yang, Y., T.A. Endreny, and D.J. Nowak. "Simulating Double-Peak Hydrographs from Single Storms over Mixed-Use Watersheds", *ASCE Journal of Hydrologic Engineering*, DOI: 10.1061/(ASCE)HE.1943-5584.0001225, 2015.
- \*Yang, Y., T.A. Endreny, and D.J. Nowak. "Simulating the Effect of Flow Path Roughness to Examine how Green Infrastructure Restores Urban Runoff Timing and Magnitude", *Urban Forestry and Urban Greening*, DOI: 10.1016/j.ufug.2015.03.004, 2015.
- \*Decker, T. J., and T.A. Endreny, SUNY College of Environmental Science and Forestry Humanitarian Engineering: Small Scale College Components and Analysis, *International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship, Special Issue: University Engineering Programs That Impact Communities: Critical Analyses and Reflection*, Fall 2014, 191-204, 2014.
- \*Haas, N.A., B.L. O'Connor, J.W. Hayse, M.S. Bevelhimer, and T.A. Endreny, "Analysis Of Daily Peaking And Run-of-river Operations With Flow Variability Metrics, Considering Subdaily To Seasonal Time Scales", *Journal of the American Water Resources Association*, 50(6): 1622-1640, DOI: 10.1111/jawr.12228, 2014.
- Smidt, S.J., J.A. Cullin, A.S. Ward, J. Robinson\*, M.A. Zimmer, L.K. Lautz, and T.A. Endreny. "A Comparison of Hyporheic Transport at a Cross-Vane Structure and Natural Riffle", *Groundwater*, DOI: 10.1111/gwat.12288, 2014.
- \*Han, B. and T.A. Endreny. "Comparing MODFLOW Simulation Options for Predicting Intra-Meander Flux", *Hydrological Processes*, 28(11), 3824-3832, DOI: 10.1002/hyp.10186, 2014.
- \*Han, B. and T.A. Endreny. "Detailed River Stage Mapping and Head Gradient Analysis During Meander Cutoff In A Laboratory River", *Water Resources Research*, 50(2): 1689–1703, DOI: 10.1002/2013WR013580, 2014.
- \*Han, B. and T.A. Endreny. "River Surface Water Topography Mapping at Sub-Millimeter Resolution and Precision With Close Range Photogrammetry: Laboratory Scale Application", *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 7(2): 602–608, DOI: 10.1109/JSTARS.2014.2298452, 2014.
- \*Zhou, T. and T.A. Endreny. "Reshaping of the Hyporheic Zone Beneath River Restoration Structures: Flume and Hydrodynamic Experiments", *Water Resources Research*, 49(8): 5009–5020, DOI: 10.1002/wrcr.20384, 2013. [1]
- \*Yang, Y., T.A. Endreny, and D.J. Nowak. "A Physically Based Analytical Spatial Air Temperature and Humidity Model", *Journal of Geophysical Research: Atmospheres*, 118(18): 10,449-10,463, DOI: 10.1002/jgrd.50803, 2013.
- \*Becker, J.F., T.A. Endreny, and J.D. \*Robinson. "Natural Channel Design Impacts on Reach-Scale Transient Storage", *Ecological Engineering*, 57(Aug): 380-392, DOI: 10.1016/j.ecoleng.2013.04.051, 2013.
- \*Yang, Y., and T.A. Endreny. "Watershed Hydrograph Model Based on Surface Flow Diffusion", *Water Resources Research*, 49(1): 507-516, DOI: 10.1029/2012WR012186, 2013.
- \*Han, B., and T.A. Endreny, "Spatial and Temporal Intensification of Lateral Hyporheic Flux in Narrowing Intra-meander Zones", *Hydrological Processes*, 27(7): 989–994, DOI: 10.1002/hyp.9250, 2013.
- Daniluk, T.L, L.K. Lautz, R.P. Gordon, and T.A. Endreny. "Surface Water-groundwater Interaction at Restored Streams and Associated Reference Reaches", *Hydrological Processes*, 27(25): 3730-3746, DOI: 10.1002/hyp.9501, 2012.
- Endreny, T.A., D.J. Burke, K.M. Burchhardt, M.W. \*Fabian, and A.M. Kretzer, "Bioretention Column Study of Bacteria Community Response to Salt-Enriched Artificial Stormwater", *Journal of Environmental Quality*, 41(6): 1951-1959, DOI: 10.2134/jeq2012.0082, 2012.
- \*Zhou, T. and T.A. Endreny, "Meander Hydrodynamics Initiated by River Restoration Deflectors", *Hydrological Processes*, 26(22): 3378-3392, DOI: 10.1002/hyp.8352, 2012.

- Endreny, T.A., and S.A.W. Diemont, "Methods for Assessing Stormwater Management at Archaeological Sites: Copan Ruins case study", *Journal of Archaeological Science*, 39(8): 2637-2642, DOI: 10.1016/j.jas.2012.04.022, 2012.
- Endreny, T.A., and L. Lautz, "Comment on 'Munz M, et al., Reducing monitoring gaps at the aquifer-river interface by modelling groundwater-surfacewater exchange flow patterns. Hydrological Processes. DOI: 10.1002/hyp.8080'", *Hydrological Processes*, 26(10): 1586-1588, DOI: 10.1002/hyp.8410, 2012.
- \*Yang, Y., T.A. Endreny, and D. Nowak, "i-Tree Hydro: Snow Hydrology Update for the Urban Forest Hydrology Model", *Journal of the American Water Resources Association (JAWRA)*, 1-8, 1752-1688, DOI: 10.1111/j.1752-1688.2011.00564.x, 2011.
- \*Fabian, M.W., T.A. Endreny, A. Bottacin-Busolin, and L.K. Lautz, "Seasonal Variation in Cascade-driven Hyporheic Exchange, Northern Honduras", *Hydrological Processes*, 25(10): 1630-1646, DOI: 10.1002/hyp.7924, 2010.
- Endreny, T.A., L. Lautz, and D. Siegel, "Hyporheic Flow Path response to Hydraulic Jumps at River Steps: Flume and Hydrodynamic Models", *Water Resources Research*, 47, W02517, DOI: 10.1029/2009WR008631, 2011. [2<sup>nd</sup> most downloaded paper 02/25/2011]
- Endreny, T.A., L. Lautz, and D. Siegel, "Hyporheic Flow Path Response to Hydraulic Jumps at River Steps: Hydrostatic Model Simulations", *Water Resources Research*, 47, W02518, DOI: 10.1029/2010WR010014, 2011.
- Endreny, T.A. and M. \*Soulman, "Hydraulic Analysis of River Training Cross-vanes as Part of Post-restoration Monitoring", *Hydrology and Earth System Sciences*, 5(7): 2119-2126, DOI: 10.5194/hess-15-2119-2011, 2011.
- Diemont, S.W., T.J. Lawrence, T.A. Endreny, "Envisioning Ecological Engineering Education: An International Survey of the Educational and Professional Community", *Ecological Engineering*, 36(4): 570-578, DOI: 10.1016/j.ecoleng.2009.12.004, 2010.
- \*Crispell, J. and T.A. Endreny, "Hyporheic Exchange Flow around Constructed In-Channel Structures and Implications for Restoration Design", *Hydrological Processes*, 23(8): 1158-1168, DOI: 10.1002/hyp.7230, 2009.
- Endreny, T.A. and N.E.A. \*Imbeah, "Generating Robust Rainfall Intensity-Duration-Frequency Estimates with Short Record Satellite Data", *Journal of Hydrology*, 37(1-4): 182-191, DOI: 10.1016/j.jhydrol.2009.03.027, 2009.
- Endreny, T.A. and V. \*Collins, "Implications of bioretention basin spatial arrangements on stormwater recharge and groundwater mounding", *Ecological Engineering*, 35: 670-677, DOI: 10.1016/j.ecoleng.2008.10.017, 2009.
- Endreny, T.A. and K. \*Thomas, "Improving Estimates of Simulated Runoff Quality and Quantity Using Road Enhanced Land Cover Data", *Journal of Hydrologic Engineering - ASCE*, 14(4): 346-351, DOI: 10.1061/(ASCE)1084-0699(2009)14:4(346), 2009.
- \*Thomas, K. and T.A. Endreny, "Improving National Land Cover Data Estimates of Road Network Impervious Cover using Vector Road Networks", *Surveying and Land Information Science*, 68(1): 21-27, 2008.
- Endreny, T.A. and H. Gokcekus, "Ancient Eco-Technology of Qanats for Engineering a Sustainable Water Supply in the Mediterranean Island of Cyprus", *Environmental Geology*, DOI: 10.1007/s00254-008-1274-4, DOI:10.1007/s00254-008-1274-4, 2008.
- \*Wang, J., T.A. Endreny, and D.J. Nowak, "Mechanistic Simulation of Tree Effects in an Urban Water Balance Model", *Journal of American Water Resources Association*, 44(1): 75-85, DOI: 10.1111/j.1752-1688.2007.00139.x, 2008.
- Endreny, T.A. and M. \*Higgins, "Adding Radar Rainfall and Calibration to the TR-20 Watershed Model to Improve Dam Removal Flood Analysis", *ASCE Journal of Water Resources Management and Planning*, 34(3): 314-317, DOI: 10.1061/(ASCE)0733-9496(2008)134:3(314), 2008.

- Endreny, T.A., "Estimating Recharge Rates for Qanat Based Water Supply in Northern Cyprus: A Case Study Using Remotely Sensed and In-Situ Data", *Urban Water*, 5(2): 161-171, DOI: 10.1080/15730620701754202, 2008.
- Endreny, T.A., "Simulation of Soil Water Infiltration with Integration, Differentiation, Numerical Methods & Programming Exercises", *International Journal of Engineering Education*, 23(3):608-617, 2007.
- Endreny, T.A. and S. Pashiardis, "The Error & Bias of Supplementing a Short, Arid Climate, Rainfall Record with Regional vs. Global Frequency Analysis", *Journal of Hydrology*, 334(1-2): 174-182, DOI: 10.1016/j.jhydrol.2006.10.00, 2007.
- Endreny, T.A., "Estimation of Channel Bankfull Occurrence from Instantaneous Discharge Data", *Journal of Hydrologic Engineering - ASCE*, 12(5): 524-531, DOI: 10.1061/(ASCE)1084-0699(2007)12:5(524), 2007.
- \*Black, J. and T.A. Endreny, "Increasing Stormwater Outfall Duration, Magnitude, and Volume through Combined Sewer Separation", *Journal of Hydrologic Engineering - ASCE*, 11(5): 472-481, DOI: 10.1061/(ASCE)1084-0699(2006)11:5(472), 2006.
- \*Wang, J., T.A. Endreny, and J.M. Hassett, "Power Function Decay of Hydraulic Conductivity for a TOPMODEL-based Infiltration Routine", *Hydrological Processes*, 20(18): 3825-3834, DOI: 10.1002/hyp.6159, 2006.
- \*Riley, T. C., T. A. Endreny and J. D. Halfman, "Monitoring Soil Moisture and Watertable Height with a Low-Cost Data Logger", *Computers & Geosciences* 32(1): 135-140, DOI: 10.1016/j.cageo.2005.05.009, 2006.
- \*Wang, J., T. A. Endreny and J. M. Hassett, "A Flexible Modeling Package for Topographically Based Watershed Hydrology" *Journal of Hydrology* 314(1-4), DOI: 10.1016/j.jhydrol.2005.03.030, 2005.
- Endreny, T.A., \*S. Wolosoff, and J.M. Hassett, "Robustness of Pollutant Loading Estimators to Water Quality Data Thinning in a Suburban Watershed", *International Journal of River Basin Management*, 3(1): 53-66, 2005.
- \*Wang, J., J. M. Hassett and T. A. Endreny, "An Object Oriented Approach to the Description & Simulation of Watershed Scale Hydrologic Processes", *Computers and Geosciences*. 31(4): 425-435, DOI: 10.1016/j.cageo.2004.09.025, 2005.
- Endreny, T.A., "Stormwater Management for Society & Nature via Service Learning & Ecological Engineering", *International Journal of Water Resources Development*, 20(3): 445-462, DOI: 10.1080/0790062042000248510, 2004.
- Endreny, T.A., B. Felzer, J.W. Shuttleworth, and M. Bonell, "Policy to Coordinate Watershed Hydrological, Social, and Ecological Needs: the HELP Initiative", in Lawford, R.G., Fort, D., Hartmann, H., and Eden, S., eds., *Water: Science, Policy and Management: Water Resources Monograph 16*, American Geophysical Union, Washington, D.C., p.395-411, 2003.
- \*Wolosoff, S., and T.A. Endreny, "Community Participation and Spatially Distributed Management in New York City's Water Supply", in Lawford, R.G., Fort, D., Hartmann, H., and Eden, S., eds., *Water: Science, Policy and Management: Water Resources Monograph 16*, American Geophysical Union, Washington, D.C., p.369-394, 2003.
- Endreny, T.A., and #E.F. Wood, "Maximizing Spatial Congruence of Observed & DEM-Delineated Overland Flow Networks", *International Journal of Geographical Information Sciences* 17(7): 699-713, 2003.
- Endreny, T.A., C. \*Somerlot, and J.M. Hassett, "Hydrograph Sensitivity to Estimates of Map Impervious Cover: a Win-HSPF BASINS Case Study", *Hydrological Processes*, 17(5):1019-1034, 2003.
- Endreny, T.A., and #E.F. Wood, "Watershed Weighting of Export Coefficients to Map Critical Phosphorous Loading Areas", *Journal of the American Water Resources Association*, 39(1): 165-181, 2003.

- Endreny, T.A., "Forest Buffer Strips: Mapping the Water Quality Benefits", *Journal of Forestry*, 100(1): 35-40, January/February 2002.
- \*Wolosoff, S., and T. Endreny, "Scientist and Policy Maker Response Types and Times in Developing Drinking Water-Supply Areas", *Environmental Management*, 29(6):729-735, 2002.
- Endreny, T.A., and #E.F. Wood, "Representing Elevation Uncertainty in Runoff Modeling and Flowpath Mapping", *Hydrological Processes*, 15: 2223-2236, 2001.
- Endreny, T.A., #E.F. Wood, and A. Hsu, "Correction of errors in SPOT-derived DEMs using GTOPO30 data", *IEEE Transactions on Geoscience and Remote Sensing*, 38(3): 1234-1241, 2000.
- Endreny, T.A., #E.F. Wood, and D. P. Lettenmaier, "Satellite-derived elevation model accuracy: hydro-geomorphologic analysis requirements", *Hydrological Processes*, 14 (1): 1-20, 2000.
- Endreny, T.A., #E.F. Wood, and D. P. Lettenmaier, "Satellite-derived elevation model accuracy: hydrological modeling requirements", *Hydrological Processes*, 14 (2): 177-194, 2000.
- Endreny, T.A., and #E.F. Wood, "Distributed watershed modeling of design storms to identify non-point source runoff", *Journal of Environmental Quality* 28 (2): 388-396, 1999.
- Endreny, T.A., and #G.D. Jennings, "A decision support system for water quality data augmentation", *Journal of the American Water Resources Association* 35 (2): 363-377, 1999.

Invited Commentary, Proceedings, & Reviews (\* indicates my student)

- Endreny, T.A. and K. Backer, "Review of Fields and Streams: Stream Restoration, Neoliberalism, and the Future of Environmental Science, R. Lave, *Ecological Restoration*, 31(3): 339-340, DOI: 10.1353/ecr.2013.0049, 2013.
- Endreny, T.A., "Naturalizing Urban Watershed Hydrology to Mitigate Urban Heat-Island Effects", Invited Commentary in *Hydrological Processes*: 22: 461-463, DOI: 10.1002/yp.6966, 2007.
- Endreny, T.A., \*Collins, V., and Leopold, D., "Estimating Stable Floodplain Width for Incised Rivers using Critical Shear, Effective Discharge, & Available Floodplain Constraints", ASCE Watershed Management Conference Proceedings, Williamsburg, VA, July 2005.
- Endreny, T.A., J. Wallace, R. Schulze, "U.N. Hydrology Initiative Pairs Societal Needs with Science", Transactions, American Geophysical Union, EOS 83(50): 592, 2002.
- Endreny, T.A., J.M. Hassett, "Integrating Canal, Watershed, and Forecast Models for Oswego River Basin Flood Prediction", in *Proceedings of ASCE Flood Forecasting and Preparedness Planning Conference*, Roanoke, VA, May 2002.
- Endreny, T.A., "Manipulating HSPF to Simulate Pollutant Transport in Suburban Systems", in *Total Maximum Daily Load (TMDL) Environmental Regulations: Proceedings of March 11-13, 2002 ASAE Conference*, Fort Worth, TX, 701P0102, p. 295-300, 2002.
- Endreny, T.A., "Manipulating HSPF to Simulate Pollutant Transport in Suburban Systems", in *Proceedings on ASAE TMDL Meeting*, Fort Worth, TX, 2002.
- Endreny, T.A. "Sustainability for NYC Drinking Water via Source Expansion, User Conservation, and Climate Prediction", *Clearwaters*, 31(3): 36-40, 2001.
- Endreny, T.A. "A Global Initiative for Hydro-Socio-Ecological Watershed Research", *Water Resources Impact* 3(4): 20-25, 2001.
- Endreny, T.A., "Selecting Accurate Overland Flow Path Algorithms for Water Quality Modeling," In H.J. Morel-Seytoux (ed) *Proceedings of the 19th Annual AGU Hydrology Days*, Fort Collins, CO, pp. 125-139, 1999.
- Endreny, T.A., and #G.D. Jennings, "Combining monitoring data from separate programs: a concept for increasing EMAP detection," In McDonnell, J, Stribling, L, Neville, R, and D.

Leopold (eds.), *Proceedings of the AWRA Annual Symposium, Watershed Restoration Management: Physical, Chemical, and Biological Considerations*, AWRA, Hendon, VA, pp. 311-320, 1996

Keiner, S., Pendergrass, J., Bass, S., Ninio, A., Endreny, T. and J. Serenyi, "Brazil's extractive reserves: fundamental aspects of their implementation," *Environmental Law Institute* No. 9148-00, Washington, D.C. 118 pp., 1994

Endreny, T.A., and J. McElfish, "New State and local approaches to environmental protection," *Environmental Law Institute* No. I3-6205.0, Washington, D.C. 143 pp., 1993

Brown, N. J. Olander, T. Endreny, R. Wray, C. Scott, and P. Mancarella, "Analysis of Agroforestry at Plan Sierra, Dominican Republic," In Buck, L. and J. Lassoie (eds.) *Natural Resources Research and Extension Series* No. 37. Cornell University, Ithaca, New York. 51 pp., 1991

Invited Presentations (\* indicates my student)

Endreny, T.A., and R. Coville, "Applying i-Tree Hydro for New York City Stormwater Management" webinar for NYC Department of Environmental Protection, Sustainability Analysis, coordinated by Erika Jozwiak, August 4, 2017

Endreny, T.A., "Tree Effects on Cooling Air and Chilling Buildings and Impacts on Energy Demand Forecasts and MicroGrid Design Simulations" presentation for MIT Energy Initiative members Ignacio Perez-Arriaga, Claudio Vergara, Reja Amatya, Turner Lee Cotterman, Pablo Duenas Martinez, Stephen Lee, at the MIT Tata Center, Cambridge, MA, July 20, 2017

Coville, R., T.A. Endreny, T. Taggart\*, E. Stephan\*, D. Nowak, "i-Tree Hydro: An Accessible Tool for Modeling the Hydrological Benefits of Trees & Green Infrastructure" in *Tools to Quantify Environmental Benefits of Trees for Stormwater/Green Infrastructure Projects Workshop* for 89<sup>th</sup> Annual Water Environment Federation Technical Exposition and Conference, New Orleans, Louisiana, September 25, 2016

Endreny, T.A., "Trees in Megacity Ecosystems: Estimating the Benefit Value", invited by Dr. B. O'Connor, Department of Civil and Materials Engineering, University of Illinois at Chicago, Illinois, November 4, 2016

Endreny, T.A., "Improving Urban Air & Water Resources with Trees & Green Infrastructure", invited by Dr. A. Micangeli, Mechanical and Aerospace Engineering Department, Sapienza University of Roma, Rome, Italy, July 5, 2016

Endreny, T.A., "Field Methods to Estimate Pollutant Storage & Removal at River Restoration Structures", invited by Dr. A. Micangeli, Mechanical and Aerospace Engineering Department, Sapienza University of Roma, Rome, Italy, July 5, 2016

Endreny, T.A., "Improving Urban Water Resources Using Green Infrastructure Design", Keynote Speaker and i-Tree Canopy / Hydro Demonstration for 2 Workshops, entitled, *Advances in Urban Environmental Management*, held at Galatas and Nikaia schools, Pireaus School District, Greece, May 12 and 13, 2016

Endreny, T.A., "Representing Impacts of Urban Water Infrastructure on Soil Moisture & Urban Green Infrastructure Design", Keynote Speaker & Panelist for Workshop entitled, *Design and Implementation of Urban Green Infrastructure: Adaptation to Global Change*, at Department of Civil and Architectural Engineering, University of Beira Interior, Covilha, Portugal, May 5, 2016

Endreny, T.A., "The i-Tree Hydro Water Budget Model for Urban Green Infrastructure: Theory, Use, and Knowledge Gaps", invited by Dr. C. Calfapietra, Institute of Agro-Environmental & Forest Biology (IBAF) and Water Research Institute (IRSA), National Research Council (CNR), Monterotondo, Rome, Italy, April 4, 2016

Endreny, T.A. and J. Robinson, "Rapid Estimation of Surface Transient Storage at River Restoration Structures", 1 of 3 talks invited by Dr. C. Gualtieri, Civil, Construction and

- Environmental Engineering Department, University of Napoli Federico II, Naples, Italy, October 14, 2016
- Endreny, T.A. and T. Zhou, "Variability in Hyporheic Zone Mixing at River Restoration Structures: Flume and Hydrodynamic Experiments", 1 of 3 talks invited by Dr. C. Gualtieri, Civil, Construction and Environmental Engineering Department, University of Napoli Federico II, Naples, Italy, October 14, 2016
- Endreny, T.A. and B. Han, "Channel Morphology Dynamics during a Laboratory Meander Neck Cutoff", 1 of 3 talks invited by Dr. C. Gualtieri, Civil, Construction and Environmental Engineering Department, University of Napoli Federico II, Naples, Italy, October 14, 2016
- Endreny, T.A., R. Coville, T. Taggart\*, E. Stephan\*, J. Royapathi, D. Nowak, "i-Tree Hydro" in *Tools to Quantify Environmental Benefits of Trees for Stormwater/Green Infrastructure Projects Workshop* for 88<sup>th</sup> Annual Water Environment Federation Technical Exposition and Conference, Chicago, Illinois, September 26, 2015
- Nowak, D. J., T.A. Endreny, T. Taggart\*, E. Stephan\*, "The i-Tree Hydro Model for Urban Forest Hydrology", Webinar presented for Western States Urban Forestry Coordinators Meeting, Reno, NV, February 4, 2015
- Nowak, D. J., T.A. Endreny, T. Taggart\*, E. Stephan\*, "Ecosystem Services Provided by Green Infrastructure: Using i-Tree Hydro", Webinar presented for Penn State Green Infrastructure Webinar Series, February 25, 2015
- Lautz, L., R.P. Gordon, T.L. Daniluk, M. Zimmer, T.A. Endreny, and K. McGrath, "Restoring Hydrological and Biogeochemical Ecosystem Services in Streams: how can Science Inform Practice?", Abstract H24B-06, in 2014 Fall Meeting American Geophysical Union, San Francisco, CA, 15-19 Dec, 2014.
- Endreny, T.A, T.P. Taggart\*, and E. Stephan\*, "i-Tree Hydro - Introduction to Stormwater Management", in i-Tree Hydro Training Workshop, The Georgia Institute of Technology, Atlanta, GA, April 2014 [three separate talks, each author leading one talk]
- \*Decker, T.J., A. Flores\*, E. Bodnaruk\*, and T.A. Endreny, "Engineers without Borders Projects in Honduras, Peru & Haiti" HydroBioGeo Seminar Series, SUNY ESF, Syracuse, NY, February 4, 2014.
- Endreny, T.A., "Development Engineering - designing systems that meet human needs", Featured Talk, Genius Olympiad, Oswego, NY, June 18, 2013.
- \*Han, B. and T.A. Endreny, "Meandering River Evolution and the Intensification of Point Bar Hyporheic Flux" HydroBioGeo Seminar Series, SUNY ESF, Syracuse, NY, April 19, 2011.
- Endreny, T.A. "Draining a river to supply drinking water: using hyporheic exchange as a measure of ecosystem impact", Cornell University BEE Soil & Water Speaker Series, Ithaca, NY., October 17, 2011.
- Endreny, T.A. "River Restoration Structures and their Hydraulic and Hyporheic Functions" HydroBioGeo Seminar Series, SUNY ESF, Syracuse, NY, January 25, 2011.
- \*Fay, M., J. Becker\*, J. Robinson\*, and T.A. Endreny, "Water Resources Research in Baker Hydrology and Hydraulics Lab" HydroBioGeo Seminar Series, SUNY ESF, October 1, 2010.
- Endreny, T.A. Moderator and Convener, Green Infrastructure Symposium, SUNY ESF Outreach, Crowne Plaza, Syracuse, NY, November 18, 2010.
- Endreny, T.A., "River Steps and the Role of Hydraulic Jumps in Hyporheic Exchange", 4th International Natural Channel Systems, Mississauga, Delta Meadowvale, September 28, 2010.
- Endreny, T.A. "Stomping after stormwater: field based science lessons", for the USEPA sponsored SCIENCE Corps program at ESF, Syracuse, NY, July, 2008.

- Endreny, T.A. "Going with the Flow: lab based science lessons", for ESF in the High School program, Baker Labs, Syracuse, NY, July and August, 2008.
- Endreny, T.A., C. Pagano\*, and S. Berman\*. "Rain Gardens: Engineering the Soil Community to Clean Stormwater", Joint SU-ESF Focus on the Nation Sustainability Showcase, April 21, 2009, Life Sciences Building, Breed Auditorium, Syracuse University, 2009.
- Endreny, T.A., "Restoration Designs for a Naturalized Onondaga Creek", Onondaga Environmental Institute - Onondaga Creek Working Group, Syracuse, NY, May 7, 2008
- Endreny, T.A., "Ecological Engineering the Restoration of Onondaga Creek & Watershed", Nature in the City Lecture Series / Center for Nature Education and Canopy, Betts Branch Library, Syracuse, NY, April 20, 2008.
- \*Crispell, J.K., and T.A. Endreny, "Hyporheic exchange flow around in-channel restoration structures", Syracuse Center of Excellence 7th Annual Symposium on Environmental and Energy Systems, Oncenter, Syracuse, NY, September 30, 2008.
- Endreny, T.A., "Onondaga Creek Habitat Restoration Demonstration Initiative - Developing Ecological Engineering Models", Fall Meeting of the Onondaga Lake Partnership, METRO, Syracuse, NY, November 15, 2007.
- \*Crispell, J.K., and T.A. Endreny, "The Effects of Thermal Loading and Hyporheic Flow on Stream Temperature Dynamics, and the Implications for Stream Restoration", Syracuse Center of Excellence 7th Annual Symposium on Environmental and Energy Systems, Oncenter, Syracuse, NY, October 22, 2007.
- Endreny, T.A. "Using design storms in urban stormwater runoff simulation to assess watershed naturalization options: Applications in Syracuse, New York USA and Cyprus" University of Cyprus Engineer in Society Seminar Series, March, April 12, 2006, Nicosia, Cyprus.
- Endreny, T.A., "Urban Ecohydrology: Engineering Sustainable Stormwater Systems", SUNY Buffalo, Department of Civil & Environmental Engineering, April 1, 2005
- Endreny, T.A., "Stream Classification for Urban Stream Restoration", New York State Floodplain & Stormwater Managers 2004 Annual Conference, Syracuse, NY September 28, 2004. Talk
- Endreny, T.A. "Update on Status of Lake Ontario as HELP Basin", by UNESCO Hydrology for Environment, Life & Policy group, meeting in Bonn, Germany, May 2003. Presentation.
- Endreny, T., "Law, Policy, Management, and Science in Lake Ontario's UNESCO HELP Basin", International HELP Symposium - Towards Integrated Catchment Management: Increasing the Dialogue, Kalmar, Sweden 18-22 August 2002. Poster.
- Endreny, T.A., "The UNESCO Hydrology for Environment, Life and Policy (HELP) Initiative", International Network of Basin Organizations (INBO) General Assembly, Quebec City, Canada May 30, 2002.
- Endreny, T.A. "Lake Ontario Progress in the UNESCO Hydrology for Environment, Life and Policy Initiative", at the Swedish Research Council and UNESCO Interim Management Committee Meetings, Stockholm, Sweden April 2-5, 2002.
- Endreny, T.A., "Topographic Analysis of Terrestrial Loading Areas in Ontario Basin", Great Lakes Research Consortium 2001/02 Seminar Series, Rochester Institute of Technology, May 2002. Postponed.
- Endreny, T.A. "Remote sensing applications in watershed assessment", Invited Speaker, Applications of Remote Sensing Technology in the Lake Ontario-St. Lawrence River Basins, Sponsored by the Great Lakes Research Consortium, Syracuse, NY June 2000.
- Endreny, T.A. "Setting up and knocking down research questions in watershed hydrology: New York City case study", Invited Lunchtime Speaker, American Water Resources

Association Student Water Resources Symposium, SUNY ESF, Syracuse, NY, April 8th, 2000.

Endreny, T.A. "Optimizing distributed forest land management using two types of topographic indexing", Invited Talk, Workshop on Application of the Topographic Index and TOPMODEL in Forested Catchments, SUNY ESF, Syracuse, NY, February 29th, 2000.

Professional Presentations (\* indicates student)

DeMarco, M., T.A. Endreny, and M. Fortier, "Benefits of Trees in Reducing Climate Change Impacts and Cooling Loads of Buildings", Spotlight on Research, SUNY ESF, April 25<sup>th</sup>, 2017

Kruegler, J., and T.A. Endreny, "Exploring the Effects of Riparian Vegetation Density on Reach Scale Hyporheic Exchange", Spotlight on Student Research Symposium, SUNY ESF, April 25<sup>th</sup>, 2017

Morrison, R. and T.A. Endreny, "The Role of Megacity Tree Cover in Mitigating Stormwater Flows and Water Quality", Spotlight on Student Research, SUNY ESF, April 25<sup>th</sup>, 2017

Mosher, B., T.A. Endreny, and C. Gualtieri, "Determining Bankfull and Non-bankfull Parameters Using Downstream Hydrologic Geometry", Spotlight on Student Research Symposium, SUNY ESF, April 25<sup>th</sup>, 2017

Endreny, T., R. Santagata, A. Perna, C. De Stefano, R. Rallo, and S. Ulgiati, "Megacity Trees Generate Billions of Dollars per Year in Ecosystem Benefits", World Summit on Environmental Accounting 2016, Beijing, China, July 6, 2016.

Lega, M. and T.A. Endreny, "Quantifying the Environmental Impact of Pollutant Plumes from Coastal Rivers with Remote Sensing and River Basin Modeling", Waste Management 2016 - 8th International Conference on Waste Management and the Environment, Valencia, Spain, June 7, 2016

\*Calderon, M., A. J. Smith, B. Baldigo, and T. A. Endreny, "Response of Macroinvertebrate Assemblages to Extreme Floods in Tributaries to the Mohawk River, NY", Poster presented at 2015 Mohawk Watershed Symposium, Union College, Schenectady, NY, March 2015.

\*Taylor, B., and T. A. Endreny, "SUNY-ESF Engineering for a Sustainable Society: Changing the World One Community at a Time", Poster presented at SUNY Undergraduate Research Conference, SUNY, Brockport, NY, April 2015.

\*Wagner, B., T. A. Endreny, and M. Vian, "Exploring Rosgen's Entrenchment Ratio in Catskill Streams", Poster presented at Spotlight on Student Research and Outreach, SUNY ESF, Syracuse, NY, April 2015.

\*Thappa, K. P., T. A. Endreny, C. R. Ferguson, and H. Mao, "Atmospheric Rivers Carry Cold Season Extreme Precipitation into Western Nepal", Poster presented at Spotlight on Student Research and Outreach, SUNY ESF, Syracuse, NY, April 2015.

\*Taggart, T. P., T. A. Endreny, and D. Nowak, "Accounting for Local Infrastructure Drainage and Leakage in Topographic Index Soil Moisture Estimates", Poster presented at Spotlight on Student Research and Outreach, SUNY ESF, Syracuse, NY, April 2015.

\*Stires, A. C., and T. A. Endreny, "Variations in Soil Fertility among Contours on an Agroforestry Plot in Mastatal, Costa Rica", Poster presented at Spotlight on Student Research and Outreach, SUNY ESF, Syracuse, NY, April 2015.

\*Stephan, E., P. Groffman, and T. A. Endreny, "Mapping Areas of Potential Denitrification in Mixed-Use Watersheds by Estimating Soil Moisture and Organic Matter Controls", Poster presented at Spotlight on Student Research and Outreach, SUNY ESF, Syracuse, NY, April 2015.

- \*Kwon, Y. S., and T. A. Endreny, "Modeling Land Use, Climate, and Soil Condition Change Effects on Streamflow in the upper Delaware River Basin", Poster presented at Spotlight on Student Research and Outreach, SUNY ESF, Syracuse, NY, April 2015.
- \*Gonzalez, M. L., and T. A. Endreny, "Predicting Groundwater Salinization due to Topography and Plant Transpiration in Central Argentina", Poster presented at Spotlight on Student Research and Outreach, SUNY ESF, Syracuse, NY, April 2015.
- \*Fortman, A. L., and T. A. Endreny, "Spatial and Temporal Changes in River Bedform around River Restoration Structures", Poster presented at Spotlight on Student Research and Outreach, SUNY ESF, Syracuse, NY, April 2015.
- \*Fello, K., and T. A. Endreny, "The Effects of Green Water Availability on Top Growing Crops in the Lake Ontario Basin", Poster presented at Spotlight on Student Research and Outreach, SUNY ESF, Syracuse, NY, April 2015.
- \*Kwon, P., T.A. Endreny, C.N. Kroll, and T.J. Williamson, "Modeling the Effects of Land Use and Climate Change on Streamflow in the Delaware River Basin", Abstract H41D-0835, in 2014 Fall Meeting American Geophysical Union, San Francisco, CA, 15-19 Dec, 2014.
- \*Stephan, E., T.A. Endreny, and D.J. Nowak, "Weighting Nitrogen and Phosphorus Export Coefficients to Represent Runoff and Trapping Likelihoods", Abstract PA13B-3902, in 2014 Fall Meeting American Geophysical Union, San Francisco, CA, 15-19 Dec, 2014.
- \*Taggart, T.P., T.A. Endreny, and D.J. Nowak, "Modeling the Effect of Urban Infrastructure on Hydrologic Processes within i-Tree Hydro, a Statistically and Spatially Distributed Model", Abstract PA13B-3911, in 2014 Fall Meeting American Geophysical Union, San Francisco, CA, 15-19 Dec, 2014.
- \*Thappa, K., T.A. Endreny, and C. Ferguson, "Understanding the Role of Water Vapor Transport in Extreme Precipitation Events in Nepal", Abstract A53K-3355, in 2014 Fall Meeting American Geophysical Union, San Francisco, CA, 15-19 Dec, 2014.
- \*Stephan, E., T.A. Endreny, and D.J. Nowak, "Development of Nutrient Model for i-Tree Hydro using Sampling Results from the Mianus River Watershed", Abstract B13F-0571 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec, 2013.
- \*Yang, Y., T.A. Endreny, D.J. Nowak, C.N. Kroll and G.M. Heisler, "Simulating Tree and Topography Effects on Urban Air temperature and Humidity", Abstract B23D-0487 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec, 2012.
- \*Chu, H. and T.A. Endreny, "Laboratory Measurements of River Vane Impacts on Intra-Meander Hyporheic Exchange: Preliminary Hydraulic Gradient Measurements", Abstract H41F-1238 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec, 2012.
- \*Zhou, T., A.S. Ward, B.L. O'Connor, and T.A. Endreny, "Floodplain Hyporheic Response under Dam Release Hydrographs", Abstract H11D-1217 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec, 2012.
- \*Han, B. and T.A. Endreny, "Water surface and channel bed morphology change before and after a laboratory meander neck cutoff", Abstract EP53H-03 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec, 2012.
- \*Robinson, J., T.A. Endreny, J.F. \*Becker, and C.N. Kroll, "A novel approach for determination of fundamental physical transport processes in natural channel design restoration sites with river steering structures", Abstract H11E-1241 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec, 2012.
- Ward, A.S., J.D. \*Robinson, T.A. Endreny, J.A. Cullin, S.J. Smidt, L.K. Lautz, and M.A. Zimmer, "Do stream restoration structures create hyporheic zones that are comparable to those at natural features?", Abstract H12B-06 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec, 2012.

- \*Robinson, J. and T.A. Endreny, "Incompletely Mixed Surface Transient Storage Zones at River Restoration Structures: Modeling Implications", Abstract H13I-08 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec, 2012.
- \*Hass, N.A., B.L. O'Connor, J. Hayse, M. Bevelhimer, and T.A. Endreny, "Flow Variability Analysis on the Differences between Daily Peaking and Run-of-River Dam Operations: A look at Daily versus Subdaily data", Abstract H41F-1238 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec, 2012.
- \*Han, B. T.A. Endreny, and H. Chu\*, "Using Close Range Photogrammetry and River Table Experiments to Detect River Stage", American Ecological Engineering Society 12 Annual Meeting, SUNY ESF Baker Labs, Syracuse, NY, June, 2012.
- \*Robinson, J. and T.A. Endreny, "Stream Water Residence Time as a Metric of Water Quality (Nutrient) Improvement: Refinement via Examination at Multiple Scales", American Ecological Engineering Society 12 Annual Meeting, SUNY ESF Baker Labs, Syracuse, NY, June, 2012.
- \*Fay, M. and T.A. Endreny, "Laboratory flume tests and CFD simulations of the VHAC surface water-groundwater vertical flux model: Testing model applicability in gravel bed pool-riffle river systems", American Ecological Engineering Society 12 Annual Meeting, SUNY ESF Baker Labs, Syracuse, NY, June, 2012.
- \*Fay, M. and T.A. Endreny, "Monitoring ecological services in river restoration projects: heat tracers and hyporheic exchange", Finger Lakes Conference, Hobart and William Smith, Geneva, NY, November 19, 2011.
- \*Fay, M. and T.A. Endreny, "Tracing hyporheic exchange around river restoration structures in an experimental flume", American Ecological Engineering Society 11 Annual Meeting, Renaissance Hotel, Asheville, NC, May 23, 2011.
- \*Robinson, J. and T.A. Endreny, "Hyporheic Exchange in Stream Restoration: An Examination of Permeable Sub-surface Lenses, No-flow Boundaries, and Constraints on Riffle Design", American Ecological Engineering Society 11 Annual Meeting, Renaissance Hotel, Asheville, NC, May 23, 2011.
- \*Zhou, T. and T.A. Endreny, "Redirecting meander bend flow paths and turbulence with natural channel design structures", American Ecological Engineering Society 11 Annual Meeting, Renaissance Hotel, Asheville, NC, May 23, 2011.
- \*Yang, Y., T.A. Endreny, and D. Nowak, "Quantifying tree effects on urban stormwater with the iTree-Hydro model", American Ecological Engineering Society 11 Annual Meeting, Renaissance Hotel, Asheville, NC, May 23, 2011.
- \*Han, B. and T.A. Endreny, "Using river meander evolution patterns to regulate hyporheic zones and intensities", American Ecological Engineering Society 11 Annual Meeting, Renaissance Hotel, Asheville, NC, May 23, 2011.
- Endreny, T.A., "The role of hydraulic jumps in driving spatial patterns of sub-river fluxes", American Ecological Engineering Society 11 Annual Meeting, Renaissance Hotel, Asheville, NC, May 23, 2011.
- Endreny, T.A., A. Kretzer, M. Fabian\*, K. Pitcher. and D. Burke, "Soil bacteria community response to treatment of stormwater nutrients", American Ecological Engineering Society 11 Annual Meeting, Renaissance Hotel, Asheville, NC, May 23, 2011.
- Kroll, C.N., M. Isla-Cabaraban, D.J. Nowak, S. Hirabayashi, and T.A. Endreny, "Modeling of Air Pollutant Removal by Urban Trees Using a WRF/CMAQ/i-Tree Coupled System", Abstract B21B-0262 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec. 2011.
- Hirabayashi, S., D.J. Nowak, T.A. Endreny, C.N. Kroll, and S. Maco, "i-Tree: Tools to assess and manage structure, function, and value of community forests", Abstract B21B-0263 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec. 2011.

- \*Yang, G., T.A. Endreny, and D.J. Nowak, "Hydrodynamic Impacts of Disrupting Point Bar Steering with River Restoration Structures", Abstract B31B-0323 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec. 2011.
- \*Zhou, T. and T.A. Endreny, "Hydrodynamic Impacts of Disrupting Point Bar Steering with River Restoration Structures", Abstract EP21B-0678 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec. 2011.
- Endreny, T.A., T. Zhou\*, and N.A. Haas\*, "Tracer Detected Changes in Hyporheic Exchange Around River Steering Structures: Flume And Computational Analysis", Abstract H34A-04 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec. 2011.
- \*Han, B. and T.A. Endreny, "Documentation of intra-meander flux intensification with river table dye tracking and modeling", Abstract H41F-1118 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec. 2011.
- \*Hass, N.A., B.L. O'Connor, J. Hayse, M. Bevelhimer, and T.A. Endreny, "Analysis of Daily-Peaking and Run-of-River Dam Operations on Flow Variability Metrics Considering Subdaily to Seasonal Timescales", Abstract H53C-1434 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec. 2011.
- \*Han, B. and T.A. Endreny, "Asymmetrical changes in hydraulic gradient along valley and river transects during meander cutoff evolution", Eos Trans. AGU, 90(22), Joint Assembly Supplement, Abstract CG21A-04, Toronto, CA, 2009.
- \*Zhou, T. and T.A. Endreny, "Model Simulation of In-Channel Restoration Structures and the Disruption of Cross-Stream Circulation and Streamwise Velocity Patterns in Meander Bends", Eos Trans. AGU, 90(22), Joint Assembly Supplement, Abstract CG21A-05, Toronto, CA, 2009.
- \*Yang, Y. and T.A. Endreny, "Model Simulation of Urban Evapotranspiration Rates Given Spatial Changes in Land Cover and Elevation", Eos Trans. AGU, 90(22), Joint Assembly Supplement, Abstract H23B-06, Toronto, CA, 2009.
- \*Fabian, M., T.A. Endreny, L.K. Lautz, and D.I. Siegel, "Changes in Hydraulic Gradient, Hyporheic Exchange, and Patterns of Nutrient Concentration between Dry and Wet Season Flows for a Tropical Mountain Stream", Eos Trans. AGU, 90(22), Joint Assembly Supplement, Abstract H71D-04, Toronto, CA, 2009.
- \*Han, B. and T.A. Endreny, "Rivers cut and run yet enhance aquatic habitat at meander bends", Center for Integrated Watershed Studies: Resolving Water Conflicts Management, Watershed Center, Binghamton, NY, May 20, 2009.
- \*Zhou, T. and T.A. Endreny, "River restoration goes against the flow to resolve the conflict of erosion", Center for Integrated Watershed Studies: Resolving Water Conflicts Management, Watershed Center, Binghamton, NY, May 20, 2009.
- Endreny, T.A., and S. Diemont, "Channel Scour and Loss of Traditional Mayan Stormwater Management at Copan Archeological Site in Honduras", Eighth Annual American Ecological Engineering Society Meeting - Beyond Wetlands: Engineering the Landscape, Virginia Tech, Blacksburg, VA, June 11-14, 2008.
- Diemont, S, T. Endreny, and T. Lawrence, "Are we Teaching Liberal Science?: Revisiting H.T. Odum on Ecological Engineering Education", Eighth Annual American Ecological Engineering Society Meeting - Beyond Wetlands: Engineering the Landscape, Virginia Tech, Blacksburg, VA, June 11-14, 2008
- Endreny, T.A. and K. Thomas\*, "Improving Transportation Area Estimates in the National Land Cover Database using Vector Road Networks", 22nd Annual New York State GIS Conference, Lake Placid, NY, October 24, 2006.
- \*Collins, V.B. and T.A. Endreny, "Infiltrating Stormwater to Naturalize Stream Flow: MODFLOW Simulation of Bioretention Basins", 2nd Annual Finger Lakes Research Conference, Geneva, NY, October 14, 2006.

- Endreny, T.A. and S. Pashiardis, "Creating Rainfall Frequency Estimates for Cyprus", Hydrogaea: A Software for Water Resources Management Conference, National Technical University of Athens & Mathematical Models for Water Management, Athens, Greece June 26-27, 2006.
- \*Collins, V.B. and T.A. Endreny, "Low Impact Development Reconsidered: Groundwater Mounding and Flux Analysis of Spatially Distributed Bioretention Basins using MODFLOW", Annual Conference of the Mid-Atlantic Sections of the American Water Resources Association, Branchville, NJ, June 14 - 16, 2006.
- Endreny, T.A. "Automated Calibration of a Watershed Model to Study Removal of a Flood Control Dam, Onondaga Creek, Syracuse, New York USA" University of Cyprus Civil & Environmental Engineering Department Lecture, February 22, 2006, Nicosia, Cyprus.
- \*Wang, J., T.A. Endreny, D. Nowak, "Hydrological Simulations of Urban Stormwater and Tree-based Best Management", The 5th Annual Southeast NY Stormwater Conference, November 2005.
- \*Soulman, M. J.M. Hassett, and T.A. Endreny, "Evaluation of Cross Vanes as a Stream Restoration Measure, Batavia Kill, Catskill Mountains, New York", Eos Trans. AGU, Abstract NB33E-01, Summer Meeting, 2005.
- \*Wang, J., T.A. Endreny, D. Nowak, "UFORE-HYDRO: Applications for Urban Hydrology in Baltimore, MD", Baltimore Ecosystem Study Annual Meeting, October 2005.
- Endreny, T.A., D. Leopold, V. Collins\*, "Assessing Geomorphic, Ecological and Social Benefits of Bankfull Flow in Onondaga Creek's Urban Channel", ASCE Watersheds 2005 Conference, Williamsburg, VA, July 2005.
- Endreny, T.A. and D. Leopold, "Prioritizing Flood Protection while Restoring Ecological Function in Urban Rivers", First National Conference on Ecosystem Restoration (NCER), Abstract in Proceedings by G. Best and D. Hayes, p126, December 6 - 10, Lake Buena Vista, FL, 2004 - Poster
- \*Wang, J., D. Nowak, and T. A. Endreny, "Modeling Urban Forest Effects on Urban Runoff Generation", American Water Resources Association Annual Conference, Florida, November, 2004 - Talk
- Endreny, T.A., and D. Leopold, "Balancing Urban River Restoration for Ecologic and Flood Control Functions", 2004 Syracuse Symposium on Environmental and Energy Systems, Marx Hotel, October 25, 2004 - Poster and Talk.
- Hassett, J M, Endreny, T A, Wolosoff\*, S, Adam, M and M J Mitchell. Effect of Suburban Development and Landscape Position on Water Quality in Three Small Watersheds Within the Croton System, New York. Eos Transactions AGU, 84(46), Fall Meet. Suppl., Abstract H51C-1066, December 2003. - Poster
- Teece, M., J. Nuwer, and T. Endreny, "Sedimentary Record of Deforestation and Ecosystem Response", Conference: Advances in Marine Biogeochemistry, Seattle, Washington, September, 2003 - Poster
- \*DeKoskie, D., T. Endreny, M. Higgins\*, J. Black\*, D. Leopold, "Restoration Feasibility Study for Onondaga Creek, Syracuse, New York" Association of State Wetland Managers Conference, Bear Mountain, NY October 2002. Poster.
- Endreny, T. J. M. Hassett, J. Hassett, M. Mitchell, D. Siegel, D. Burns, P. Heisig, "Runoff Timing and Quality as a Function of Suburbanization". American Water Resources Association 2002 Annual Water Resources Conference, Philadelphia, PA November 3-7, 2002, p.37, Abstract Proceedings. Talk. In Welty, Claire (Editor), AWRA's 2002 Annual Water Resources Conference Proceedings, American Water Resources Association, Middleburg, VA, TPS-02-4, 328 pp.
- Endreny, T. and M. Bonell, "Watershed Planning for Citizen Participation and Needs Identification." American Water Resources Association 2002 Annual Water Resources Conference, Philadelphia, PA November 3-7, 2002, p.58, Abstract Proceedings. Talk. In

- Welty, Claire (Editor), AWRA's 2002 Annual Water Resources Conference Proceedings, American Water Resources Association, Middleburg, VA, TPS-02-4, 328 pp.
- \*Black, J., D. Leopold, and T. Endreny, "Modeling the Potential Success of the Reintroduction of Atlantic Salmon into Onondaga Creek", Great Lakes Research Consortium Student Faculty Conference 2002, SUNY ESF, Syracuse, NY March 15-16, 2002. Poster.
- Endreny, T.A., "Lake Ontario and the United Nations HELP Program", Emerging Issues Panel of the Great Lakes Research Consortium Student Faculty Conference 2002, SUNY ESF, Syracuse, NY March 15-16, 2002. Talk.
- Endreny, T.A., J.M. Hassett, NYS Canal Corporation, and NE River Forecast Center, "Integrating Canal, Watershed, and Forecast Models for Flood Prediction on the NYS Canal System, Seneca River Section", ASCE EWRI 2002 Conference, Section on Flood Forecasting and Preparedness Planning, Roanoke, VA May 2002. Talk & Moderator.
- Endreny, T.A., "Manipulating HSPF to Simulate Pollutant Transport in Suburban Systems", Given by J. Duncan, Fort Worth, TX, March 2002. Talk.
- Endreny, T.A., J.M. Hassett, and S. Wolosoff, "Hydrologic Response as a Function of Suburbanization in Three Northeastern Watersheds", EOS Transactions AGU, 82(47): F450. (Location of Poster: American Geophysical Union Spring Meeting, San Francisco, CA, December 2001).
- \*Duncan, J., and T.A Endreny, "Water Quality Modeling of an Urbanizing Catchment: Model Compatibility and Comparison" EOS Transactions AGU, 82(47): F392. (Location of Poster: American Geophysical Union Spring Meeting, San Francisco, CA, December 2001).
- Endreny, T.A., J. Manno, and J. Wallace, "Hydrology for the Environment, Life, and Policy (HELP): Lake Ontario Operational Membership", at Finger Lakes - Lake Ontario Watershed Protection 2001 Annual Meeting, Auburn, NY, October 23, 2001.
- Endreny, T.A., J. Manno, "Redirecting Hydrologic Research to Address Complex Socio-Ecological Watershed Interactions", at the 8th Annual Conference on the St. Lawrence River Ecosystem, Cornwall, Ontario CANADA, (May 14th - 16th 2001).
- Endreny, T.A. and S. Wolosoff\*, "Coordinating Scientist and Policymaker Response Types and Times to Improve Watershed Management in Suburbanizing Areas", EOS Transactions AGU 82(20): S142. (Location of Talk: American Geophysical Union Spring Meeting, Boston, MA, May 2001)
- Endreny, T.A. and J.M. Hassett, "Limitations of HSPF in Simulating Sub-Urban Polluted Runoff into Receiving Waters", EOS Transactions AGU 82(20): S181. (Location of Poster: American Geophysical Union Spring Meeting, Boston, MA, June 2001)
- \*Sommerlot, C., J. Duncan\*, and T. Endreny, "Assessing Changes in Impervious Area Using Land Use Maps of Different Resolution in the Croton NY City Water Supply Watershed", EOS Transactions AGU 82(20): S181. (Location of Poster: American Geophysical Union Spring Meeting, Boston, MA, June 2001)
- \*Wang, J. T. Endreny, and J. Hassett, "Three Methods for Simulating Septic Loading in a Residential Watershed with HSPF", EOS Transactions AGU 82(20): S182. (Location of Poster: American Geophysical Union Spring Meeting, Boston, MA, June 2001)
- \*Wolosoff, S., T. Endreny, and J. Hassett, "Assessing Receiving Water Quality Impacts due to Flow Path Alteration in Residential Catchments using the Stormwater and Wastewater Management Model", EOS Transactions AGU 82(20): S183. (Location of Poster: American Geophysical Union Spring Meeting, Boston, MA, June 2001)
- Endreny, T.A., and E.F. Wood, "Development of a spatially distributed phosphorous trapping likelihood model to assess water quality benefits of riparian buffers", EOS Transactions, AGU 81 (19): S255, 2000 (Location of Talk: American Geophysical Union Spring Meeting, Washington, DC, June 2000).

- Endreny, T.A. S. Wolosoff\*, and D. Curry, "The Impact of Sub-Urbanization on Water Resource Scientist and Policy Maker Response Types and Times", EOS Transactions, AGU 81 (19): S193, 2000 (Location of Talk: American Geophysical Union Spring Meeting, Washington, DC, June 2000).
- Endreny, T.A., and E.F. Wood, "Accuracy limits in predicted overland flow networks: The impact of sub-grid topographic and vegetative controls,," EOS Transactions, AGU 80 (46): F340, 1999 (Location of Talk: American Geophysical Union Fall Meeting, San Francisco, CA, December 1999).
- Endreny, T.A., "Selecting Accurate Overland Flow Path Algorithms for Water Quality Modeling," At the 19th Annual AGU Hydrology Days, Fort Collins, CO, August 19th, 1999.
- Endreny, T.A., and E.F. Wood, "Improving satellite-derived terrain maps for non-point source (NPS) runoff modelling," EOS Transactions, AGU, 1999 (Location of Talk: American Geophysical Union Spring Meeting, Boston, MA, June 1999).
- Endreny, T.A., and E.F. Wood, "Optimal grid-cell routing for flow across inaccurate terrain maps," EOS Transactions, AGU 79 (45): F249, 1998 (Location of Talk: American Geophysical Union Fall Meeting, San Francisco, CA, December 1998).
- Endreny, T.A. "Geomorphologic and hydrologic implications of satellite-derived terrain map errors," Presentation, Program in Environmental Engineering and Water Resources Graduate Seminar, Princeton University, December 1998.
- Endreny, T.A., "Non-point source pollution modeling using remotely sensed data- Part II," Poster, NASA-Goddard Space Flight Center, Graduate Student Researcher Program Symposium, Greenbelt, MD, September, 1998
- Beal, C.A., and T.A. Endreny, "Comprehensive monitoring program of the Stony Brook and Millstone River Watershed," EOS Transactions, AGU Vol. 79, No. 17, pp. S105-6, April 28, 1998 (Location of Poster: American Geophysical Union Spring Meeting, Boston, MA, May 1998.)
- Endreny, T.A., and E.F. Wood, "Identification of critical non-point source pollution areas with topographically-based distributed watershed modeling," Poster, Joint American Geophysical Union/Soil Science Society of America Chapman Conference: Application of GIS, Remote Sensing, Geostatistics, and Solute Transport Modeling to the Assessment of Non-point Source Pollutants in the Vadose Zone, Riverside, CA, October 1997.
- Endreny, T.A., "Non-point source pollution modeling using remotely sensed data - Part I," Presentation, NASA-Goddard Space Flight Center, Graduate Student Researcher Program Symposium, Greenbelt, MD, September 1997.
- Endreny, T.A., "How digital elevation model resolution and accuracy impacts hydrological response," Presentation, Program in Environmental Engineering and Water Resources Graduate Seminar, Princeton University, May 1997.
- Endreny, T.A. "Watershed modeling of hydrologically sensitive areas: a topographically driven process," Poster, Program in Environmental Engineering and Water Resources Graduate Seminar, Princeton University, January 1997.
- Endreny, T.A., G.D. Jennings. "Combining monitoring data from separate programs: a concept for increasing EMAP detection," Poster, AWRA Annual Symposium, Syracuse, NY, June 1996.

Books, Chapters, & Reports (\* indicates my graduate student)

- Nowak, D.J., A.R. Bodine, R.E. Hoehn, S.C. Low, L.A. Roman, J.G. Henning, E. \*Stephan, T. \*Taggart, and T.A. Endreny. "The Urban Forest of Philadelphia", Resource Bulletin NRS-106, U.S. Department of Agriculture, Forest Service, Northern Research Station, Newtown Square, PA, 80 p., 2016.

- Nowak, D.J. A. Bodine, R.E. Hoehn, A. Ellis, K. Bomberger, D. Crane, T.A. Endreny, T. \*Taggart, and E. \*Stephan. "Assessing forest effects and values: Douglas, County, KS", Resource Bulletin NRS-91, USDA Forest Service, Northern Research Station, Newtown Square, PA, 76 p., 2014.
- Nowak, D.J., R.E. Hoehn, A.R. Bodine, E.J. Greenfield, A. Ellis, T.A. Endreny, Y. \*Yang, T. \*Zhou, and R. Henry, "Assessing urban forest effects and values: Toronto's urban forest", Resource Bulletin, NRS-79, USDA Forest Service, Northern Research Station, Newtown Square, PA, p.59, 2013.
- Nowak, D.J., Bodine, A.R., Hoehn, R.E., Crane, D.E., Ellis, A., Endreny, T.A., \*Yang, Y., Jacobs, T., Shelton, K., "Assessing urban forest effects and values: the greater Kansas City region", Resource Bulletin, NRS-75, Newtown Square, PA, USDA Forest Service, Northern Research Station, p.72, 2013.
- Nowak, D.J., J. \*Wang, and T.A. Endreny, "Environmental and Economic Benefits of Preserving Forests within Urban Areas: Air and Water Quality" Chapter 4 in The Economic Benefits of Land Conservation, Edited by C.T.F. de Brun, The Trust for Public Land, San Francisco, CA, pp. 28-47, 2007
- \*McCone, M. T.A. Endreny, J. Atkinson, J. DePinto, and J. Manno, "Role of International Policy and Science in Addressing Great Lakes Management and Lake Erie Eutrophication", in Hydrology and Water Law – Bridging the Gap, Edited by J. S. Wallace and P. Wouters, Title in the Water Law and Policy Series, Edited by P. Wouters and S. Vinogradov, International Water Association Publishing, London UK, pp. 78-107, 2006
- Endreny, T.A., "Land Use and Land Cover Effects on Runoff Processes: Urban and Suburban Development", in Encyclopedia of Hydrological Sciences, Editor in Chief, M. G. Anderson, John Wiley & Sons, Chichester, pp. 1775-1804, 2005
- Endreny, T.A., "Water & Hydrology", in The Encyclopedia of New York State, Published by Syracuse University Press, pp: 1664-1670, 2005
- Endreny, T.A. and J. Doherty, "Snow Removal", in The Encyclopedia of New York State, Published by Syracuse University Press, pp: 1428-1429, 2005
- \*Black, J. and T.A. Endreny, "Remote Sensing in Hydrology", in The Encyclopedia of Water, Volume: Oceanography, Meteorology, Physics & Chemistry, Water Law & Water History, Edited by Dr. Jay Lehr, Published by Wiley Water, pp. 319-327, 2005
- \*Bridger, E. and T.A. Endreny, "Forests and Wetlands", in The Encyclopedia of Water, Volume: Surface and Agricultural Water, Edited by Dr. Jay Lehr, Published by Wiley Water, pp. 170-174, 2005
- Endreny, T.A., "Great Lakes Hydrology", in The Encyclopedia of Water, Volume: Surface and Agricultural Water, Edited by Dr. Jay Lehr, Published by Wiley Water, pp. 175-179, 2005
- Endreny, T.A., "Rainfall-Runoff Processes", in The Encyclopedia of Water, Volume: Oceanography, Meteorology, Physics & Chemistry, Water Law & Water History, Edited by Dr. Jay Lehr, Published by Wiley Water, pp. 315-319, 2005
- Endreny, T.A., "Riparian Systems", in The Encyclopedia of Water, Volume: Surface and Agricultural Water, Edited by Dr. Jay Lehr, Published by Wiley Water, pp. 390-392, 2005
- Endreny, T.A., "Evaporation", in The Encyclopedia of Water, Volume: Oceanography, Meteorology, Physics & Chemistry, Water Law & Water History, Edited by Dr. Jay Lehr, Published by Wiley Water, pp. 223-226, 2005
- Endreny, T.A., "Radar Use in Rainfall Measurements", in The Encyclopedia of Water, Volume: Oceanography, Meteorology, Physics & Chemistry, Water Law & Water History, Edited by Dr. Jay Lehr, Published by Wiley Water, pp. 306-309, 2005

Steenvoorden, J. and T. Endreny, Editors, Wastewater Reuse and Groundwater Quality, International Association of Hydrological Sciences (IAHS) Publication No. 285, Wallingford, UK, 2004.

\*Wang, J., J.M. Hassett, T.A. Endreny, and J.J. McDonnell, "Criteria for Selection of Models for Water Quality Management in Urbanizing Areas", Prepared for the NYC Department of Environmental Protection, 2000

U.S. Environmental Protection Agency, Remotely monitoring water resources: An EPA/NASA workshop, EPA841-B-99-006. Office of Water (4503F), United States Environmental Protection Agency, Washington, DC. 101 pp., 1999

#### Interactive Publications

Fluvial Geomorphology Training - Interactive Internet site produced for University Corporation for Atmospheric Research (UCAR) Cooperative Program for Operational Meteorology, Education and Training (COMET): [www.fgmorph.com](http://www.fgmorph.com)

Meteorology Lectures – Developed Power Point lecture material for the Brooks/Cole Publishing multi-media CD ROM in D. Ahren's textbook, *Meteorology Today*, 6<sup>th</sup> Edition

#### **Research Funding:**

Award: Croton Terrestrial Processes. Sponsor: NYC Department of Environmental Protection. PI: Hassett, Dr. James M. coPI: Endreny, Dr. Theodore A. Dates: 9/1/1999 - 12/33/2003. Amount: 59,911. Allocation: 33.33%

Award: Multi-Media Integrated Modeling System Program Review. Sponsor: Environmental Protection Agency. PI: Endreny, Dr. Theodore A. Dates: 2/15/2001 - 6/30/2001. Amount: \$5368. Allocation: 100%

Award: Onondaga Creek Restoration Feasibility Study: Controlling for Flooding and Water Quality and Enhancing Natural Processes. Sponsor: US Department of Housing and Urban Development. PI: Endreny, Dr. Theodore A. coPI: Leopold, Dr. Donald J. Dates: 2/2/2002 - 9/1/2004. Amount: \$200000. Allocation: 66.67%

Award: Monitoring Effectiveness of Riparian Buffer Zones. Sponsor: Environmental Protection Agency. PI: Briggs, Dr. Russell D. coPI: Endreny, Dr. Theodore A. Dates: 5/1/2002 - 9/30/2006. Amount: \$150000. Allocation: 33.33%

Award: Residuals From Fixed Cost Contracts And Grants For Research And Educational Support. Sponsor: Multiple Sponsors. PI: Endreny, Dr. Theodore A. Dates: 7/1/1998 - 9/30/2018. Amount: \$5730.2. Allocation: 100%

Award: RF Award College of Envir. Science & Forestry FY 2002-2003 Loc. 550. Sponsor: RMS Allocation Account. PI: Mitchell, Dr. Myron J. coPI: Dawson, Dr. Chad P : Endreny, Dr. Theodore A : Limburg, Dr. Karin E : Boyer, Dr. Elizabeth W. Dates: 2/1/2004 - 12/31/2006. Amount: \$4005.47. Allocation: 16.67%

Award: Urban Forest Modeling Tool-Water Quality Effects. Sponsor: USDA Forest Service. PI: Endreny, Dr. Theodore A. Dates: 9/1/2002 - 6/30/2007. Amount: \$250727. Allocation: 100%

Award: Fluvial Geomorphology, Channel Hydraulics, and Routing Module Training. Sponsor: University Corporation for Atmospheric Research. PI: Endreny, Dr. Theodore A. coPI: Hassett, Dr. James M. Dates: 12/1/2002 - 11/1/2004. Amount: \$39196. Allocation: 66.67%

Award: Research Experience for Teachers: River Restoration. Sponsor: National Science Foundation. PI: Endreny, Dr. Theodore A. Dates: 5/26/2008 - 1/31/2010. Amount: \$14945. Allocation: 100%

Award: Enhanced Monitoring and Evaluation of Septic Systems. Sponsor: Catskill Watershed Corporation. PI: Hassett, Dr. James M. coPI: Siegel, Dr. Donald I : Endreny, Dr. Theodore A. Dates: 6/1/2003 - 12/31/2007. Amount: \$244619. Allocation: 25%

- Award: Outreach/Continuing Education Master Account. Sponsor: Multiple Sponsors. PI: Endreny, Dr. Theodore A. coPI: Spuches, Dr. Charles M. Dates: 7/1/2003 - 6/30/2018. Amount: \$83455.09. Allocation: 66.67%
- Award: EnSpire Seed Grants. Sponsor: Syracuse University. PI: Mitchell, Dr. Myron J. coPI: Dawson, Dr. Chad P : Endreny, Dr. Theodore A : Limburg, Dr. Karin E : Boyer, Dr. Elizabeth W. Dates: 2/1/2004 - 12/31/2006. Amount: \$16475. Allocation: 16.67%
- Award: Chancellor's Awards for Internationalization. Sponsor: Research Foundation Services. PI: Endreny, Dr. Theodore A. Dates: 3/1/2004 - 6/30/2005. Amount: \$8000. Allocation: 100%
- Award: 550 FY 2004-2005 RF ALLOCATION ACCOUNT. Sponsor: RMS Allocation Account. PI: Endreny, Dr. Theodore A. Dates: 7/1/2005 - 9/30/2017. Amount: \$28850.3. Allocation: 100%
- Award: Onondaga Creek Habitat Restoration Demonstration Initiative. Sponsor: Environmental Protection Agency. PI: Endreny, Dr. Theodore A. coPI: Leopold, Dr. Donald J. Dates: 8/1/2004 - 7/31/2010. Amount: \$347900. Allocation: 66.67%
- Award: Award Renewal for McIntire Stennis. Sponsor: USDA Cooperative State Research Service. PI: Daley, Mr. Douglas J. coPI: Endreny, Dr. Theodore A. Dates: 8/26/2005 - 9/30/2008. Amount: \$1461. Allocation: 33.33%
- Award: Onondaga Lake Scientific and Technical Program. Sponsor: Onondaga Environmental Institute. PI: Endreny, Dr. Theodore A. Dates: 5/1/2005 - 12/31/2010. Amount: \$21500. Allocation: 100%
- Award: Water Flux and Nitrogen Cycling in the Hyporheic Zones of a Semi-Arid Watershed. Sponsor: Syracuse University. PI: Endreny, Dr. Theodore A. Dates: 5/15/2005 - 4/30/2010. Amount: \$127032.86. Allocation: 100%
- Award: Water Flux and Nitrogen Cycling in the Hyporheic Zones of a Semi-Arid Watershed. Sponsor: Syracuse University. PI: Mitchell, Dr. Myron J. coPI: Endreny, Dr. Theodore A : Lautz, Dr. Laura K. Dates: 5/15/2005 - 4/30/2010. Amount: \$138177.81. Allocation: 25%
- Award: Renewal Award for McIntire Stennis FY 05-06. Sponsor: USDA Cooperative State Research Service. PI: Daley, Mr. Douglas J. coPI: Endreny, Dr. Theodore A. Dates: 8/26/2005 - 9/30/2008. Amount: \$26345. Allocation: 33.33%
- Award: Growing Willow as an Alternative Cover for the Solvay Waste Beds. Sponsor: Honeywell International Incorporated. PI: Volk, Dr. Timothy A. coPI: Endreny, Dr. Theodore A : Daley, Mr. Douglas J : Abrahamson, Dr. Lawrence P. Dates: 12/1/2005 - 12/31/2007. Amount: \$375201. Allocation: 20%
- Award: 550 FY2006-2007 RF ALLOCATION ACCOUNT. Sponsor: RMS Allocation Account. PI: Endreny, Dr. Theodore A. Dates: 3/1/2010 - 6/30/2011. Amount: \$6790. Allocation: 100%
- Award: 550 FY2006-2007 RF ALLOCATION ACCOUNT. Sponsor: RMS Allocation Account. PI: Endreny, Dr. Theodore A. Dates: 7/1/2006 - 6/30/2018. Amount: \$123551.05. Allocation: 100%
- Award: Unrestricted Sponsored Program Fixed-Cost Balances. Sponsor: Balance-Multiple Sponsors. PI: Endreny, Dr. Theodore A. Dates: 7/1/2006 - 6/30/2018. Amount: \$5642.73. Allocation: 100%
- Award: 550 FY2006-2007 RF ALLOCATION ACCOUNT. Sponsor: RMS Allocation Account. PI: Endreny, Dr. Theodore A. Dates: 7/1/2005 - 9/30/2017. Amount: \$33897.54. Allocation: 100%
- Award: Unrestricted Sponsored Program Fixed-Cost Balances. Sponsor: Balance-Multiple Sponsors. PI: Endreny, Dr. Theodore A. Dates: 7/1/1998 - 9/30/2018. Amount: \$9657.8. Allocation: 100%

- Award: State Urban Forest Report and Urban Watershed Analysis. Sponsor: USDA Forest Service. PI: Endreny, Dr. Theodore A. Dates: 8/1/2006 - 5/31/2008. Amount: \$32664. Allocation: 100%
- Award: UFORE - Hydro:BMPs. Sponsor: USDA Forest Service. PI: Endreny, Dr. Theodore A. coPI: Kroll, Dr. Charles N. Dates: 8/15/2006 - 8/15/2011. Amount: \$459129. Allocation: 66.67%
- Award: McIntire Stennis FY 06-07. Sponsor: USDA Cooperative State Research Service. PI: Daley, Mr. Douglas J. coPI: Endreny, Dr. Theodore A. Dates: 8/26/2005 - 9/30/2008. Amount: \$26944. Allocation: 33.33%
- Award: FY 2007-2008 RF Allocation Award. Sponsor: RMS Allocation Account. PI: Endreny, Dr. Theodore A. Dates: 7/1/2005 - 9/30/2017. Amount: \$3354.69. Allocation: 100%
- Award: Stream Thermal Loading Through Impervious Surface Runoff, and the Influence of Hyporheic Flow on Stream Temperature. Sponsor: Syracuse University. PI: Endreny, Dr. Theodore A. Dates: 8/15/2007 - 8/14/2008. Amount: \$36760. Allocation: 100%
- Award: McIntire Stennis FY 07-08. Sponsor: USDA Cooperative State Research Service. PI: Daley, Mr. Douglas J. coPI: Endreny, Dr. Theodore A. Dates: 8/26/2005 - 9/30/2008. Amount: \$25415. Allocation: 33.33%
- Award: Outreach/Continuing Education Master Account. Sponsor: Balance-Multiple Sponsors. PI: Endreny, Dr. Theodore A. coPI: Spuches, Dr. Charles M. Dates: 7/1/2003 - 6/30/2018. Amount: \$11367.96. Allocation: 66.67%
- Award: FY 2008-2009 RF Allocation Award. Sponsor: RMS Allocation Account. PI: Endreny, Dr. Theodore A. Dates: 7/1/2005 - 9/30/2017. Amount: \$0. Allocation: 100%
- Award: Designing an Ecologically Sustainable Community Water Supply in Rural Honduras. Sponsor: National Science Foundation. PI: Endreny, Dr. Theodore A. Dates: 7/15/2008 - 12/31/2009. Amount: \$49995. Allocation: 100%
- Award: Impacts of Green Infrastructure on Directly Connected Impervious Cover and Spectral Signatures. Sponsor: Syracuse Center of Excellence in Environmental and Energy System. PI: Endreny, Dr. Theodore A. coPI: Quackenbush, Dr. Lindi : Im, Dr. Jungho. Dates: 7/31/2008 - 11/1/2009. Amount: \$7564. Allocation: 25%
- Award: Water Resource Impacts of Flexi Pave - A Porous Pavement. Sponsor: Syracuse Center of Excellence in Environmental and Energy System. PI: Endreny, Dr. Theodore A. coPI: Endreny, Dr. Theodore A : Ivanov, Dr. Ivan Gitsov. Dates: 3/1/2009 - 2/28/2010. Amount: \$17139. Allocation: 66.67%
- Award: FY 2009-2010 RF Allocation Award. Sponsor: RMS Allocation Account. PI: Endreny, Dr. Theodore A. Dates: 7/1/2005 - 9/30/2017. Amount: \$0. Allocation: 100%
- Award: Collaborative Research: Impacts of In-Stream Restoration on Hydrological, Chemical, and Biological Heterogeneity in the Hyporheic Zone. Sponsor: National Science Foundation. PI: McGrath, Ms. Kathleen. coPI: Endreny, Dr. Theodore A : Ringler, Dr. Neil H. Dates: 1/1/2010 - 12/31/2015. Amount: \$275335. Allocation: 25%
- Award: Reach-Scale Patterns in Hyporheic Exchange at Pristine, Degraded and Restored Rivers. Sponsor: Cornell University. PI: Endreny, Dr. Theodore A. coPI: Kroll, Dr. Charles N. Dates: 6/1/2011 - 2/29/2012. Amount: \$20000. Allocation: 66.67%
- Award: Enhancing iTree Spatial Simulation of Urban Water, Heat, and Pollution. Sponsor: USDA Forest Service. PI: Endreny, Dr. Theodore A. coPI: Kroll, Dr. Charles N. Dates: 8/1/2011 - 9/5/2016. Amount: \$489285. Allocation: 66.67%
- Award: EPA Fellowship for Jesse Robinson. Sponsor: Environmental Protection Agency. PI: Endreny, Dr. Theodore A. Dates: 8/17/2011 - 8/16/2013. Amount: \$28207. Allocation: 100%
- Award: A New i-Tree Tool for Assessing Forest Impacts on Urban Ecosystems. Sponsor: USDA Forest Service. PI: Kroll, Dr. Charles N. coPI: Endreny, Dr. Theodore A. Dates: 8/17/2011 - 9/30/2015. Amount: \$257183. Allocation: 33.33%

- Award: FY 2013-2014 RMS General. Sponsor: RMS Allocation Account. PI: Endreny, Dr. Theodore A. Dates: 7/1/2006 - 6/30/2018. Amount: \$19894.92. Allocation: 100%
- Award: FY 2013-2014 RMS General. Sponsor: RMS Allocation Account. PI: Endreny, Dr. Theodore A. Dates: 7/1/2005 - 9/30/2017. Amount: \$38435.49. Allocation: 100%
- Award: Sustainable Mianus River Watershed Management Plans Developed with Community-Based i-Tree Hydro Modeling. Sponsor: Mianus River Gorge Preserve. PI: Endreny, Dr. Theodore A. Dates: 6/1/2013 - 12/31/2016. Amount: \$15000. Allocation: 100%
- Award: Determining Natural Flows and Hydrologic Alterations in the Delaware River. Sponsor: National Park Service. PI: Endreny, Dr. Theodore A. coPI: Kroll, Dr. Charles N. Dates: 8/6/2013 - 1/31/2016. Amount: \$48760. Allocation: 66.67%
- Award: New York Sea Grant's Omnibus 2014 - 2019. Sponsor: National Oceanic and Atmospheric Administration. PI: Boyer, Dr. Gregory L. coPI: Luzadis, Dr. Valerie : Endreny, Dr. Theodore A : Newman, Dr. David H. Dates: 2/1/2015 - 11/30/2017. Amount: \$143138. Allocation: 20%
- Award: 4E Network: Workshop Establishing SUNY Water Nodal Network. Sponsor: Corporate Funded. PI: Endreny, Dr. Theodore A. Dates: 6/1/2015 - 5/31/2017. Amount: \$10000. Allocation: 100%
- Award: i-Tree: Integrating Hydrological Ecosystem Services and Feedbacks. Sponsor: USDA Forest Service. PI: Endreny, Dr. Theodore A. coPI: Kroll, Dr. Charles N : Bevilacqua, Dr. Eddie. Dates: 5/24/2016 - 12/31/2019. Amount: \$139930. Allocation: 25%
- Award: A Decision Support System to Develop, Analyze, and Optimize Urban & Community Forests. Sponsor: USDA Forest Service. PI: Kroll, Dr. Charles N. coPI: Endreny, Dr. Theodore A. Dates: 8/18/2016 - 8/31/2019. Amount: \$285340. Allocation: 33.33%

**Service via ESF Leadership Duties:**

- Chair, Department of ERE, SUNY ESF, 2011-present
- Advisor and Founder to SUNY ESF Chapter Engineers without Borders, 2003-present
- Lab Director, James M. Hassett Hydrology and Hydraulics Lab in Baker 106, 2008-2015
- Undergraduate Coordinator, ESF's Department of Environmental Resources Engineering, Coordinated advising, maintained advising protocol & websites, 2013-2016
- Graduate Coordinator, ESF's Department of Environmental Resources Engineering, Developed duties, graduate websites, led Research Methods Seminar, 2005-2011
- Undergraduate Advisor, ESF's Department of Environmental Resources Engineering, 15-20 Undergraduate Students annually, 2000 – present
- Graduate Advisor, ESF's Department of Environmental Resources Engineering, 1-2 MPS, 1-4 MS, and 1-4 PhD Students annually, 2000 – present
- Faculty Search Committee Chair, ESF's Department of Environmental Resources Engineering, Geospatial Engineering (2006-7) Water Resources Engineering (2010-11)
- Departmental Review Committee Chair, ESF's Department of Environmental Resources Engineering, Faculty Promotion and Continuing Appointment duties, 2008-present
- Miscellaneous Duties: Chair and Member to various Graduate Student Steering Committees; Member of American College & University President's Climate Commitment for GHG Neutral Campus; Member of Council on Hydrologic System Science; Former Advisor of Student Chapters of AWRA and Habitat for Humanity (H4H); Member of SU-ESF Environmental Science Initiative; Initiated and Maintain the ESF Engineer Linked-In community; Conduct Hydraulics Lab Tours for Bring your Daughters/Children to Work; Provide PE Training to Local Consulting Firms for ERE Department; Member Committee on Students and Educational Program for Middle States Accreditation Self Study 2000-2002; Member of ESF Student Retention

Committee 2002-2005; Participant ERE ABET Accreditation Visitation Preparation 2000, 2006

Cooperative Weather Observer for National Weather Service, NOAA Established automation for ESF station and perform daily 7 AM weather measurement used for climatology and weather advisories, warnings, or watches, Walters Hall, 2001-present

**Service via Non-ESF Professional Duties:**

Editorial Board, *Hydrological Processes*, Wiley, 2005-present

Associate Editor, *Water Resources Research*, 2013-2016

Advisory Board, *Journal of River Basin Management*, IAHR & INBO, 2003-present

Advisor, S.C.I.E.N.C.E. Corps, for SUNY ESF Outreach to K-12 schools, 2006-present

Advisory Board, *NSF IGERT Ecosystem Restoration through Interdisciplinary Exchange (ERIE)*, University at Buffalo, 2009-present

Advisory Board, Sustainability Initiative w/in Council for Responsible Sport, 2008-present

Advisor, US Forest Service (USFS) Northeastern Research Station on adding hydrological routines to their UFORE / iTree air-quality model, Baltimore NSF-LTER test site, 2001-present

Advisor, Onondaga Environmental Institute, Syracuse Mayors Office, and Syracuse community groups such as CANOPY and Partnership for Onondaga Creek, 2000-present

Advisory Board, Project Watershed, CNY Isaac Walton League chapter coordinating river water quality monitoring, 2000-present

Reviewer of ERIE IGERT NSF Program at SUNY at Buffalo, March 2011

Technical Advisor & Participant, Army Corps of Engineers Dam Removal on Onondaga Creek, Water Resources Development Act, October 2010

Advisory Board, NYS Science and Technology Program Integration Board, reporting on nutrient loading in Onondaga Creek watershed to the NYS Department of Environmental Conservation and Onondaga Lake Partnership members (US Army Corps of Engineers, US EPA, NY Attorney General, Onondaga and Syracuse government), 2004-2010

Member on Center for Excellence Research and Technology Committee – Water, 2007-2008

Scientific Advisory Board, United Nations Educational Scientific and Cultural Organization (UNESCO) Hydrology for Environment Life and Policy (HELP) Initiative, 2002-2005

Book Review Editor, *Hydrological Processes: HP Today*, Wiley, 2002-2005

Member, AGU Horton (Hydrology) Research Grant Committee, 2001-2005

Member, Int'l Association of Hydrological Sciences (IAHS) Water Quality Group, 2001-2005

Conference Sessions: Co-convened AGU Session Groundwater-Surface Water Interactions: Dynamics across Spatial and Temporal Scales December 2011; Review Abstracts for Technical Program Committee, preparing for IEEE International Geosciences and Remote Sensing Symposium (IGARSS), Boston, MA, July 2008; Co-Convened International Hydrology Session, American Society of Civil Engineering Watershed Management Conference, Williamsburg, VA, July, 2005. Co-Chair Technical Committee and Paper Editor, preparing for XXIII General Assembly of the International Union of Geodesy and Geophysics (IUGG), Sapporo, Japan, July 2003; Moderator for American Society of Civil Engineering EWRI Session on Forecasting & Flooding, Roanoke, VA, 2002; Initiated and convened American Geophysical Union Spring Meeting Session on Use of Remotely Sensed Data for Parameterizing Water Quality Models, Boston, MA, 1999

Reviewer, IEEE International Geosciences and Remote Sensing Symposium (IGARSS), Boston, MA, July 2008. Review Abstracts for Technical Program Committee.

- Member, US Environmental Protection Agency Panel on ecological impacts from the interaction of climate change, land use, and invasive species, 2007
- Member, US Environmental Protection Agency, Industrial Ecology Panel, 2006
- Member, US Environmental Protection Agency Panel on watershed indicators of stress, 2003
- Advised with the Natural History Museum of the Adirondacks, Tupper Lake, on meteorology at the request of former ESF President, Dr. Ross Whaley, 2000-2003.
- Assessed the US Environmental Protection Agency Multi-Media Integrated Modeling (MIMS) program, Research Triangle Park, NC, 2001
- Provided hydrologic flow controls advice for a river restoration and fish-stocking project to US Fish and Wildlife fisheries biologist D. Brison for section of Canaseroga Creek, Madison County, 2002

**Service via Outreach:**

- Provided Interviews for Local and National News Outlets on our i-Tree Tools international research, “Implementing and Managing Urban Forests: a much needed conservation strategy to increase ecosystem services and urban wellbeing”, including: <https://www.citylab.com/environment/2017/08/how-much-are-trees-worth-to-megacities/537972/>, <https://www.reuters.com/article/us-global-climatechange-trees-idUSKCN1B326Z>, <https://financialtribune.com/articles/people-environment/70955/trees-offer-services-worth-500m-to-megacities>, <https://phys.org/news/2017-08-annual-trees-million-megacity.html>, <http://dailyorange.com/2017/09/suny-esf-professors-research-urban-tree-benefits-in-syracuse/>, video for ESF Going Green, August – September 2017
- Delivered interactive lecture, “Careers in Urban Restoration and Environmental Resources Engineering” using ESF Hydrology and Hydraulics Lab flumes and river table, for ESF in the High School, September, 2017.
- Developed and Delivered “Advances in Urban Environmental Management” science teacher training workshops, Pireaus, Greece School District, April – May 2016
- Developed and Delivered “Engineering & Art in Fountain Design”, 3<sup>rd</sup>-6<sup>th</sup> grades, SUNY ESF Take Your Kids to Work, April 2011, 2013
- Organized ERE staff to deliver Hydraulics Lab Flume Demonstrations for ESF in the High School students, 2 tours/week, Fall Semester, 2012
- Taped and Broadcast “River Restoration” on NPR WAMC Northeast Public Radio Academic Minute, September 2010, <http://www.publicbroadcasting.net/wamc/news.newsmain/article/0/0/1701858/>
- Delivered “Stomping after Stormwater” science lessons to in the Bristol Myers Squibb 18<sup>th</sup> Science Horizons with undergrads Nate Barlet and Chris Shrimpton, July 2010
- Trained ESF Outreach staff to deliver the “Stomping after Stormwater” science lessons to in the USEPA sponsored SCIENCE Corps program, while I developed a new science lesson, “Going with the Flow”, using the Baker 106 hydraulic flumes and river table. These were delivered through 7 1-hr lab experiments, summer 2008-2010
- Conducted river restoration analysis and engineering design training of two high school teachers as part of an NSF sponsored Research Experience for Teachers in Engineering, during 2 weeks in July 2008.
- Delivered “Stomping after stormwater” science lessons to ESF Outreach and USEPA sponsored SCIENCE Corps students, through 7 1-hr field experiments, summer 2007.
- Provided NY elementary school teacher training with an infiltration science lesson, as contracted under an NSF Geosciences Education sponsored “Urban Schoolyards” workshop, July 2007
- MOST Jr. Café Scientifique Exhibition, ‘Predicting Catastrophic Rainfall in Syracuse’, April 2007
- Delivered Frontiers of Science Lecture, “Front Yards Needed: Help Clean Syracuse Stormwater”, at Syracuse University, April 2007

ESF Multi-Cultural Lunchtime Learning Seminar, “African, Asian, and European Influences on Waters Management”, February 2007  
Assist ESF Outreach by sharing college teaching methods that link service learning during ESF in the High School workshop, 2004  
Provide surveying, monitoring, and modeling demonstrations for NY school and fair, 2003-present  
Provide semi-regular public updates on rainfall-runoff linkages with TV and radio news appearances and spots in Syracuse newspapers, through ESF News & Publications Office, 2001-present

**Service via Review of Articles & Proposals**

Article reviews on Publons <https://publons.com/author/655738/theodore-endreny#profile>  
Reviewed ~65 proposals for NSF, USDA (national & McIntire Stennis), USEPA, USGS, Water Resources Institute, Academy of Finland, 2000 - present  
Reviewed 100+ student-initiated proposals for AGU Horton Research Award, 2001-2005

**Teaching & Course Development:**

Fall Semester

River Form & Process, ERE 412 & 612, with weekly lab & daylong field exercise  
Intro to Environmental Resources Engineering, ERE 132, with site visits

Spring Semester

Engineering Hydrology & Hydraulics, ERE 340 & 540, with weekly lab  
Ecological Engineering in the Tropics, ERE 311 & 511, with 9 day field study  
Hydrogeology & Biogeochemistry Seminar, ERE 797

Prior Courses

Humanitarian Engineering for Development Workers; Appropriate Technologies in the Developing World; Hydrometeorology; Graduate Research Methods; Pollutant Fate & Transport; Floodplain and River Hydrology; Watershed Modeling; Meteorology; Engineering Response to Climate Change; Urban and Rural Hydrology; Nonpoint Source Monitoring & Modeling; Fluvial Geomorphology Seminar; Forestry Seminar; Introduction to Environmental Science

Courses & Guest Lectures Developed

Courses: Ecological Engineering for Urban Sustainability Undergraduate Course for Parthenope University in Naples, Italy; Urban River Basin Modeling PhD Course for Parthenope University in Naples, Italy; Humanitarian Engineering for Development Workers Course for ESF; Appropriate Technology for International Development Seminar for ESF

Lectures: Water Resources in New York State; Current Topics in Water Resources Engineering Research Fluid Mechanics and Hydrology for the PE Exam; Aquatic Ecosystem Restoration & Enhancement - Natural Channel Design; Urban Forestry - Urban Vegetative Controls on Stormwater Runoff; Water Resources Management - Runoff Processes & Models

Training in Teaching and Course Development

Participate in ESF Outreach teaching and learning outcomes symposia, 2000-present  
Trained in Classroom Management Systems w/ Blackboard and Jing software, 2011-13  
Consult *The New Professors Handbook: A Guide to Teaching and Research in Engineering & Sciences* (Davidson & Ambrose, 1994) and relevant periodicals on teaching theory such as *Tomorrow's Professor* and *Chronicle of Higher Education*, 2000-present  
Completed Carnegie Mellon Engineering Teaching Scholars Workshop, July 2000

Completed Pacific Crest Process Education/Teaching Workshop, SUNY Oswego, NY, May 2000 & Pacific Crest Syllabus Development Workshop, SUNY ESF, NY, July 2000

**Graduate Advisors:**

Ph.D. with Dr. Eric Wood at Princeton University,  
M.S. with Dr. Greg Jennings at North Carolina State University

**Thesis Advisor:**

Past Advisees: 18 MPS, 20 MS, 4 PhD, names at [www.esf.edu/ere/endreny/students.htm](http://www.esf.edu/ere/endreny/students.htm)  
Current Advisees: 3 MS, 5 PhD, names at [www.esf.edu/ere/endreny/students.htm](http://www.esf.edu/ere/endreny/students.htm)

**Honors:**

Distinguished Chair in Environmental Science, Parthenope University, Naples, Italy, 2016  
Founding Member, International Science Council, UNESCO HELP Initiative  
Honorariums at University of Western Ontario and Hobart William Smith College  
Honor societies: Sigma Xi Scientific Research, Phi Kappa Phi, Alpha Epsilon Agricultural Engineering Society, Xi Sigma Pi Forestry, and Gamma Sigma Delta Honor Society  
Invited talks and articles, listed with publications.

**Awards:**

Fulbright Commission Research & Lecturer Sabbatical Award, Italy, 2016  
Global Humanitarian Engineer of the Year Finalist, IEEE GHTEC, 2013  
Distinguished Teacher Award, ESF Undergraduate Student Association, 2009  
Fulbright Commission Research & Lecturer Sabbatical Award, Cyprus, 2006  
State University of New York Chancellor's Internationalization Award, 2004  
Federal Emergency Management Agency Award - Flood Mitigation Design, 2001  
National Science Foundation Award - Designing Engineering Education, 2000  
Peace Corps Award – Tropical Forestry Training at U of Peace, Costa Rica, 1991

**Synergistic Activity:**

Advisor for SUNY ESF Engineers without Borders Chapter - using sustainable design theory for outreach in water supply and ecological restoration for Latin America: 2003-present.  
Developed and maintain iTree Hydro application used by city and regional planners to quantify benefits of watershed restoration ([www.itreetools.org/hydro](http://www.itreetools.org/hydro)): 2001-present.  
Developed and maintain fluvial geomorphology teaching and training modules for NOAA UCAR and NWS (<http://www.fgmorph.com>): 2003-present.  
Report SUNY ESF daily weather observations for NWS Cooperative Observers Program, and use data in outreach with *ESF in the High School* outreach activities: 2000-present.  
Serve as technical advisor to Onondaga County Save the Rain and USDA Forest Service on stormwater benefits of trees: 2001-present.