

NSF Biographical Sketch

RICHARD G. LUTHY, Ph.D., P.E., D.E.E., Member NAE, Fellow WEF

Department of Civil and Environmental Engineering

Stanford University, Stanford, CA 94305-4020

(a) Professional Preparation

University of California, Berkeley	Civil Engineering (Environmental Engineering)	Ph.D. 1976
University of California, Berkeley	Civil Engineering (Environmental Engineering)	M.S. 1974
University of Hawai'i	Ocean Engineering	M.S. 1969
University of California, Berkeley	Chemical Engineering	B.S. 1967
Clarkson University	Environmental Engineering	Honorary Sc.D. 2005

(b) Appointments

Stanford University

Silas H. Palmer Professor, Department of Civil and Environmental Engineering	2000-present
Senior Fellow, Woods Institute for the Environment	2004-2016
Chair, Department of Civil and Environmental Engineering	2003-2009

Carnegie Mellon University

Thomas Lord Professor, Environmental Engineering	1996-1999
Department Head, Civil & Environmental Engineering	1989-1996
Asst/Assoc/Professor, Department of Civil & Environmental Engineering	1975-1999
Associate Dean, Carnegie Institute of Technology	1986-1988
Acting Dean, Carnegie Institute of Technology	6/1988-12/1988

Professional Engineer (Pennsylvania, License PE-24546E, expires 9/30/2017)

(c, i) Five recent research papers (out of 250)

Ashoori, Negin, Marc Teixido, Stephanie Spahr, Gregory H LeFevre, David L Sedlak, and Richard G Luthy. "Evaluation of pilot-scale biochar-amended woodchip bioreactors to remove nitrate, metals, and trace organic contaminants from urban stormwater runoff" *Water Research* 154, 1 (2019): 1-11.
doi: 10.1016/j.watres.2019.01.040

Wolfand, Jordyn M., Carolin Seller, Colin D. Bell, Yeo-Myoung Cho, Karl Oetjen, Terri S. Hogue, and Richard G. Luthy. "Occurrence of Urban-Use Pesticides and Management with Enhanced Stormwater Control Measures at the Watershed Scale." *Environmental Science & Technology* 53, no. 7 (2019): 3634-3644.

Bradshaw, Jonathan L., Mauricio Osorio, Theo G. Schmitt, and Richard G. Luthy. "System Modeling, Optimization, and Analysis of Recycled Water and Dynamic Storm Water Deliveries to Spreading Basins for Urban Groundwater Recharge." *Water Resources Research* 55, no. 3 (2019): 2446-2463.

Luthy, R. G., S. Sharvelle, and P. Dillon. "Urban Stormwater to Enhance Water Supply." *Environmental Science & Technology*, 53, no. 10 (2019): 5534. (cover feature article)

Bradshaw, J. L., N. Ashoori, M. Osorio, and R. G. Luthy. "Modeling Cost, Energy, and Total Organic Carbon Trade-Offs for Stormwater Spreading Basin Systems Receiving Recycled Water Produced Using Membrane-Based, Ozone-Based, and Hybrid Advanced Treatment Trains." *Environmental Science & Technology* 53, no. 6 (2019): 3128-3139.

(c, ii) Five other recent research papers (out of 250)

Pritchard, James, Yeo-Myoung Cho, Negin Ashoori, Jordyn Wolfand, Jeff Sutton, Margaret Carolan, Eduardo Gamez, Khoa Doan, Joshua Wiley, and Richard Luthy. "Benzotriazole uptake and removal in vegetated biofilter mesocosms planted with *Carex praegracilis*." *Water* 10, no. 11 (2018): 1605.

Wolfand, Jordyn M., Colin D. Bell, Alexandria B. Boehm, Terri S. Hogue, and Richard G. Luthy. "Multiple Pathways to Bacterial Load Reduction by Stormwater Best Management Practices: Trade-Offs in Performance, Volume, and Treated Area." *Environmental Science and Technology* 52 (2018): 6370-6379.

Bradshaw, Jonathan L.; Luthy, Richard G., Modeling and Optimization of Recycled Water Systems to Augment Urban Groundwater Recharge through Underutilized Stormwater Spreading Basins, *Environmental Science & Technology*, 2017, 51 (20), 11, 809.

Lin, Diana; Cho, Yeo-Myoung; Oen, Amy; Eek, Espen; Tommerdahl, Jake P.; Luthy, Richard G., Toolset for assessment of natural recovery from legacy contaminated sediment: Case study of Pallanza Bay, Lake Maggiore, Italy, *Water Research*, 2017, 121, 109.

Halaburka, Brian J.; LeFevre, Gregory H.; Luthy, Richard G., Evaluation of Mechanistic Models for Nitrate Removal in Woodchip Bioreactors, *Environmental Science & Technology*, 2017, 51 (9), 5156.

d. Synergistic Activities (list five)

Professor Luthy's research advances scientific and regulatory views on water reuse, as well as environmental risk and management of persistent and bioaccumulative contaminants. This work has involved REUs, high school students, and high school teachers, as well as a long history of development and/or refinement of research tools, computation methodologies, and algorithms for problem-solving, and innovations to support sustainable water quality management.

He is the Director of the NSF Engineering Research Center for Re-inventing the Nation's Urban Water Infrastructure (ReNUWIt), a four-university consortium that seeks more sustainable solutions to urban water challenges in the arid west that promotes the integration and transfer of knowledge as well as its creation. Through its Education and Outreach Program, ReNUWIt seeks innovations in teaching and training, e.g., development of curricular materials and pedagogical methods for technology diffusion.

Professor Luthy chaired the recent NRC study on the beneficial use of graywater and stormwater, and is a former chair and board member of the National Research Council's Water Science and Technology Board; these are examples of service to the scientific and engineering community outside of Stanford University.

Recent service to the National Academy of Engineering includes the Nominating Committee and chair of the Peer Committee for Civil Engineering, which provides service to the engineering profession.

Professor Luthy served as the President, Past President, Vice President and Board Member, of the Association of Environmental Engineering and Science Professors, an 850-member organization that strives for innovations in teaching, development of curricular materials, and contributions to the science of learning and development of research tools.

He was a founding board member of the AEESP Foundation.