

**1. Roger Babcock Jr.**

**2. Education:**

Ph.D. Civil Engineering, University of California Los Angeles, Los Angeles, CA  
M.S. Civil & Environmental Engineering, California Polytechnic State University, San Luis Obispo, CA  
B.S. Civil Engineering, University of California Davis, Davis, CA

**3. Academic experience:**

Technical University of Berlin, Berlin, Germany, Visiting Scholar, 1/94-5/94, full time  
UCLA, Los Angeles, CA, Civil Engineering Department, Lecturer, 9/94-8/95, 50% time  
University of Hawaii at Manoa, Assistant Professor, 1995-2000  
University of Hawaii at Manoa, Associate Professor, 2000-2016  
University of Hawaii at Manoa, Professor, 2016-present  
University of Hawaii at Manoa, Graduate Program Chair, 2009-present

**4. Non-academic experience:**

John Carollo Engineers, Walnut Creek, CA, Project Engineer, Designed water and wastewater treatment plants, 1992-1993, full-time

**5. Certifications or professional registrations:**

California, Civil PE# 51325  
Hawaii, Civil PE# 12133

**6. Current membership in professional organizations:**

American Society of Civil Engineers (ASCE)  
Engineers Without Borders (EWB-USA),  
Water Environment Federation (WEF)  
Hawaii Water Environment Association (HWEA)

**7. Honors and awards:**

ASCE Student Chapter Faculty Advisor Award, 2002  
ASCE Faculty Advisor Certificate of Commendation, 2003 and 2004 and 2008  
NWRI Award of Excellence for MBR research study, 2004  
Manoa Sustainability Teaching Award, 2006  
ASCE Hawaii Section, Outstanding Civil Engineering Achievement Award, Best Study/Research Project, 2009  
Hi Chang Chai Excellence in Teaching Award, 2009 and 2015 and 2018  
Order of the Engineer, Outstanding Link Coordinator, 2014  
ASCE Outstanding Faculty Advisor Award, 2018  
Faculty Service Award, College of Engineering, 2018  
Engineer of the Year 2019, HCES

## 8. Service activities:

- a) Appointed Member, Elected Chair, State of Hawaii, Board of Certification of Operating Personnel in Wastewater Treatment Plants, 1997-2003; 2011-2015
- b) Chair, Research Committee, HWEA, 1998-present
- c) Member, UH Manoa Faculty Senate, 2001-2002
- d) President, College of Engineering Faculty Senate, 2006-2007
- e) Chair, UH Manoa General Education Ethics Board, 2005-2007
- f) Faculty Advisor, ASCE Student Chapter, 2001-2003, 2005-present
- g) Member, UH Manoa Graduate Council, 2006-2012
- h) Member, UH Ethics Committee, Office of Research Compliance, 2008-present
- i) Secretary, Engineers Without Borders-USA, Honolulu Chapter, 2007-2008
- j) Treasurer, Secretary, Vice-President, President Elect, President, Past President, ASCE Hawaii Section, 2006-2012
- k) Member, ASCE Environment and Water Resources Institute, Congress Committee, 2007-2009
- l) Technical Program Chair, EWRI World Congress, 2008
- m) Technical Program Co-Chair, EWRI World Congress, 2009
- n) Director, HI Statewide Wastewater Operator Training Center, 2010-present
- o) Secretary/Treasurer, Vice-President, President, Past President, Hawaii Water Environment Association, 2016-2020
- p) Secretary, Treasurer, Vice-Chair, Chair, Hawaii Council of Engineering Societies, 2019-2023

## 9. Most important publications of last five years:

Huang T, Jia R, Xia S, and **Babcock R W Jr** (2014) Effect of various parameters on microbial communities in membrane bioreactors treating municipal wastewater. Frensus Environ. Bul. **23(4)**: 976-985.

Li Y and **Babcock R W Jr**, (2014) Green roof hydrologic performance and modeling: A review. Wat. Sci. Tech. **69 (4)**: 727-738.

Li Y and **Babcock R W Jr**, (2014) Green roofs against pollution and climate change. A review. Agron. Sustain. Dev. **34 (4)**: 695-705.

**Babcock R W Jr**, Senthill A, Lamichhane K, Agsalda J, and Lindbo G D (2015) Enhanced nitrogen removal with an onsite aerobic cyclic biological treatment unit, Wat. Sci. Tech. **71 (12)**: 1831-1837.

Li Y and **Babcock R W Jr**, (2015) Modeling Hydrologic Performance of a Pilot Green Roof with HYDRUS-2D, J. Environ. Eng. ASCE. **141 (11)**: 04015036-1-9.

Xu-Sadri H, **Babcock R W Jr**, Lamichhane K (2015) Analysis and comparison of the bacterial community in membrane bioreactors and other treatment systems, Int. J. Wat. Wastewater Trt. **2(1)**: doi <http://dx.doi.org/10.16966/2381-5299.112>.

**Babcock R W Jr**, Wellbrock A, Slenders P, and Radway J (2016) Improving mass transfer in an inclined tubular photobioreactor, J. Appl. Phycol. **28 (4)**: 2195-2203.

Postacchini L, Lamichhane KM, Furukawa D, **Babcock R W Jr**, Ciarapica FE, Cooney MJ (2016) Life cycle analysis of primary clarifier effluent treatment, Wat. Sci. Tech. 73(10): doi: 10.2166/wst2016.087

Li Y and **Babcock R W Jr** (2016) A simplified model for modular green roof hydrologic analyses and design, Water 8(8): 343.

Lamichhane KM, Lewis K, Rong K, **Babcock R W Jr**, Cooney MJ (2017) Treatment of high strength acidic wastewater using passive pH control, J Wat. Process Eng., doi: 10.1016/j.jwpe.2017.06.014

**Babcock R W Jr**, Harada B K, Lamichhane KM and Tsubota K T (2017) Adsorption of 1,2,3-Trichloropropane (TCP) to meet an MCL of 5 ppt. Environ. Pollution. doi: 10.1016/j.envpol.2017.09.085

Spirandelli D, Dean T, **Babcock R W Jr** and Braich E (2018) Policy gap analysis of decentralized wastewater management on a developed pacific island. J Environ Plan & Mgmt, doi: 10.1080/096640568.2019.1565817.

**Babcock, R.W.Jr.**, Bateni S, and Francis O (February 2016) Reduction of stormwater sediment runoff in West Maui. Presented at the 2016 Pacific Water Conference, Honolulu, Hawaii.

**Babcock, R.W.Jr.**, Wong T-P, Milan, S and Hu B (February 2017) Biosorption and bioflocculation of raw wastewater to help achieve net zero energy. Presented at the 2017 Pacific Water Conference, Honolulu, Hawaii.

**Babcock, R.W.Jr.**, Budd E, Spirandelli D and Shen S (March 2017) Sensitivity analysis of sea-level rise induced groundwater infiltration in coastal sewer pipes. Presented at the 2017 Pacific Risk Management Ohana (PRiMO) Conference, Honolulu, Hawaii.

**Babcock, R.W.Jr.**, and Hu B (February 2018) Laboratory thermal hydrolysis of wastewater sludges. Presented at the 2018 Pacific Water Conference, Honolulu, Hawaii.

Antonneau, N, Doyle M, Johnson B, El Jerdi H, **Babcock, R.W.Jr.**, and Wong T-P (May 2018) Biologically enhanced primary treatment: A summary of experience from pilot, demonstration, and full-scale systems. Presented at the 2018 WEF Residuals and Biosolids Conference, Phoenix AZ.

**Babcock, R.W.Jr.**, Bae H-D, Bly S, and Hu B (February 2019) Pilot testing of enhanced primary treatment and solids drying in Hawaii. Presented at the 2019 Pacific Water Conference, Honolulu, Hawaii.

Oleson K, **Babcock, R.W.Jr.**, Barnes M, and Fung A (February 2019) Cost/benefit decision-making for cesspool replacement alternatives. Presented at the 2019 Pacific Water Conference, Honolulu, Hawaii.

**Babcock, R.W.Jr.** and Schwab E (July 2019) Compilation of LID Stormwater BMP design guidelines, costs, and maintenance requirements. Presented at the 2019 Stormwater Quality BMP Workshops, Honolulu, Hawaii.

**Babcock, R.W.Jr.**, Budd E, Fung A, Spirandelli D and Shen S (September 2019) So, you want to predict sewer infiltration when groundwater depth changes? Proceedings of the 92nd annual conference of the Water Environment Federation, Chicago, Illinois.