

Roger W. Babcock Jr.

Director, Department of Environmental Services

Adjunct Professor, Civil Engineering, University of Hawaii at Manoa

Education

High School:	Bishop O'Dowd HS (Oakland CA)	May 1981
University:	UC Davis, B.S. Civil Engineering	June 1987
Graduate School:	Cal Poly SLO, MS Civil Eng.	June 1989
	UCLA, Ph.D. Civil Engineering	Dec 1991

Licences

Professional Engineer: Civil #51325 California (1994); Civil #12133 Hawaii (2006)

Executive Experience

Director, Department of Environmental Services, Honolulu, HI
(01/22 - 12/24): Supervise and manage the operation of the Department and its work units – wastewater and solid waste

Director and Chief Engineer, Department of Facility Maintenance, Honolulu, HI
(01/21 – 12/21): Supervise and manage the operation of the Department and its work units – road maintenance, public buildings and electrical maintenance, storm water, automotive and equipment services

Consulting Experience

Project Engineer, Carollo Engineers, Walnut Creek, CA
(8/92 - 12/93): Responsible for selection and evaluation of design alternatives and materials to be used for upgrade and expansion of drinking water and wastewater treatment plants and pipelines.

Independent Consultant, Roger Babcock Jr Environmental Engineer, Honolulu, HI, (8/95 – present) for the following companies: M&E Pacific/AECOM, CH2MHill/Jacobs, Brown & Caldwell, Hawaii Pacific Engineers/HDR, Kennedy Jenks Consultants, Yogi Kwong Engineers, Environet, Bill's Engineering, Community Planning and Engineering, Hydrobyte LLC, GSI Pacific, Aqua Engineers, Laulea Engineering LLC, Engineering Solutions, Applied Geosciences, Kauikeolani LLC, Reynolds Metals, Tesoro Refinery, DIMCO, Pacific American Foundation, Enviniti LLC, Best Industries, Kalama Eng, Aylward Enterprises, Hawaii Dept of Health Wastewater Branch. Responsible for various studies, evaluations, designs and design reviews. US Dept of Justice: expert witness on large case involving water quality, sewage sludge and hydraulics/hydrology.

Academic and Executive Experience

Professor, Department of Civil & Environmental Engineering (50%), and Water Resources Research Center (50%), University of Hawaii at Manoa (8/16 – 12/21), associate professor (8/00 – 8/16), assistant professor (8/95 – 8/00): Adjunct Professor (1/22 – present). Teaching undergraduate and graduate courses, leading an externally-funded research program that produces scholarly output and involves mentoring graduate students, supervising employees, service to the university, the state, the nation, and the engineering industry/profession. Executive experience: 1) Associate Director for Engineering (1999-2001) National Science Foundation-funded \$12.4M Marine Bioproducts Engineering Research Center. 2) Director of a research enterprise for 25 years consisting of a 7,500 square foot research lab, one full-time state employee (technician) and 76 MS/PhD graduate students, funded by 45 research grants: average 3 to 6 employed researchers at all times.

Research Areas

Effects of sea level rise on wastewater infrastructure; carbon diversion and sludge treatment for green energy production from wastewater; wastewater recycling; on-site wastewater treatment and cesspool conversions; stormwater treatment via biofiltration and green roofs.

Awards

Professional:

- Engineer of the Year 2019, Hawaii Council of Engineering Societies
- Engineer of the Year 2024, ASCE Region 8, Dale Nelson EOY

Teaching:

- UH Manoa Sustainability Teaching Award, 2006
- Hi Chang Chai Excellence in Teaching Award, College of Engineering, 2009
- Hi Chang Chai Excellence in Teaching Award, College of Engineering, 2015
- Hi Chang Chai Excellence in Teaching Award, College of Engineering, 2018
- UH Board of Regents Medal for Excellence in Teaching, 2020
- Hi Chang Chai Excellence in Teaching Award, College of Engineering, 2021

Research:

- NWRI Award of Excellence for MBR research study, 2004
- ASCE Hawaii Section, Outstanding Civil Engineering Achievement Award, Best Study/Research Project, 2009
- ASCE Hawaii Section, Outstanding Civil Engineering Achievement Award, Best Study/Research Project, 2020
- ASCE Hawaii Section, Outstanding Civil Engineering Achievement Award, Best Study/Research Project, 2021
- ACEC Hawaii, Engineering Excellence Honor Award, 2022

Mentoring:

- ASCE National Student Chapter Faculty Advisor Award, 2002
- ASCE National Faculty Advisor Certificate of Commendation, 2003
- ASCE National Faculty Advisor Certificate of Commendation, 2004
- ASCE National Faculty Advisor Certificate of Commendation, 2008
- ASCE National Outstanding Faculty Advisor Award, 2018

Service:

- Volunteer Recognition Award, Boy Scouts of America, Aloha Council, 2012
- Order of the Engineer, National Outstanding Link Coordinator, 2014
- Faculty Service Award, College of Engineering, 2018

Scholarship

Publications

- Peer-Reviewed Journal Publications: 45
- Technical Reports: 40
- Technical Conference Presentations: 133
- Conference Proceedings Editor: 1

Research Grants

- Completed – Federally funded: 14
- Completed – State and Local funded: 14
- Completed – Industry funded: 18
- Completed – Wastewater Operator Training: 6

Student Mentoring

- Completed - Committee Chair (85): 5 PhD, 37 MS Thesis, 43 MS Non-Thesis
- Completed – Committee Member (68): 19 PhD, 27 MS Thesis, 22 MS Non-Thesis
- Current – Committee Chair: 1 PhD

Professional Affiliations and Service

American Society of Civil Engineers (ASCE)

- 2019-2023 National Committee on Student Chapter Conferences
- 2001-2020 ASCE Student Chapter Faculty Advisor, national awards received:
 - Student Chapter Certificate of Commendation, 2016, 2020
 - Student Chapter Letter of Honorable Mention, 2002, 2014, 2015, 2017, 2018
 - Student Chapter Letter of Significant Improvement, 2006, 2020
 - Student Chapter Letter of Recognition for Community Service, 2015
 - Student Chapter National Outstanding Community Service Award, 2017
- 2006-2007 Treasurer of ASCE Hawaii Section
- 2007-2008 Secretary of ASCE Hawaii Section
- 2008-2009 Vice-President of ASCE Hawaii Section
- 2009-2010 President Elect of ASCE Hawaii Section
- 2010-2011 President of ASCE Hawaii Section
- 2011-2012 Past President of ASCE Hawaii Section
- 1996-2005 Environmental Technical Committee for ASCE Hawaii Section
- 2007-2009 Congress Committee Member – Environment & Water Resources Institute
- 2008 Technical Program Chair, ASCE-EWRI World Congress – held in Honolulu
- 2009 Technical Program Co-Chair, ASCE-EWRI World Congress – held in Kansas City

Water Environment Federation/Hawaii Water Environment Association (WEF/HWEA)

- 1996-2000 Asia Pacific Region Committee of WEF
- 1999-present Chair, Research Committee of HWEA
- 1997-present Coordinator, Student Poster Session, HWEA annual conference and AWWA Hawaii Section annual conference, and Pacific Water Conference
- 2016-2017 Secretary/Treasurer of HWEA
- 2017-2018 Vice President of HWEA
- 2018-2019 President of HWEA
- 2019-2020 Past President of HWEA

Hawaii Council of Engineering Societies (HCES)

- 2010-2012 ASCE Representative
- 2018-present HWEA Representative
- 2019-2020 Secretary of HCES
- 2020-2021 Vice-Chair of HCES
- 2021-2022 Chair of HCES
- 2019-present Engineers Week Awards Banquet emcee

American Council of Engineering Consultants Hawaii (ACECH)

- 2013, 2015 Engineering Excellence Awards judge

Hawaii Society of Professional Engineers (HSPE)

- 2003 PE Education Practice Division chair

Engineers Without Borders (EWB-USA)

- 2007-2008 Honolulu Professional Chapter, founding member and first Secretary

Order of the Engineer

- 2006-present Link Coordinator for University of Hawaii College of Engineering, preside over induction ceremonies for all graduates at every Fall and Spring college commencement, have inducted over 2,000 members into the Order of the Engineer.

University of Hawaii at Manoa

- 1995-2020 Director, Water Resources Research Center, Environmental Chemistry Laboratory, includes supervision of permanent lab technician
- 2010-2022 Director, Statewide Wastewater Operator Training Center (SWOTC), took over operation for SWOTC from Hawaii Dept of Health when defunded due to budget

cuts, now all counties contract with UH for monthly training courses on all islands, oversee 8 employees who conduct trainings

- 1995-2005 Environmental Center, Reviewer of Draft Environmental Assessments (EAs) and Environmental Impact Statements (EISs) and New Drinking Water Source Reports
- 1999-2001 Associate Director - Engineering, NSF Marine Bioproducts Engineering Research Center
- 2001-2003 Manoa Faculty Senate (elected), Representing College of Engineering, Chaired the Committee on Academic Policy and Planning (CAPP) for 2002
- 2006-2007 President, College of Engineering Faculty Senate (elected)
- 2007-2008 Climate Change Commission, UH Manoa
- 2009-2020 Graduate Program Chair, Civil & Environmental Engineering Dept
- 2009-2012 UHPA Faculty Representative for WRRC (elected)
- 2015-2016 Member, Institutional Learning Objectives Assessment Project, Assessment Office
- 2013-2020 Member, UH System Ethics Committee, research integrity investigation panel

Hawaii State Department of Health

- 1996-2003 Member/Chair, Board of Certification of Wastewater Treatment Plant Operators. Appointed by Governor Cayetano, confirmed by Senate
- 2011-2024 Vice-Chair, Board of Certification of Wastewater Treatment Plant Operators, appointed by Governor Abercrombie, Re-appointed by Ige, confirmed by Senate
- 1999-2003 Member, Environmental Technical Advisory Committee (ETAC)
- 2009 Gray Water Rulemaking Committee Member, created the Guidelines for the Reuse of Gray Water
- 2020-2021 Member, Onsite Water Reuse Rulemaking Committee
- 1996-2020 Instructor: Wastewater Treatment Plant Operator Continuing Education Training Classes on all islands: began teaching 2-day classes in 1996 at one or two per year, then ramped up to 12 or more classes per year between 2010-2014, taught 31 different classes in all (from a suite of 75 total) on all islands. Total taught: 85+ classes. Nearly every one of the 325 certified wastewater operators in the State of Hawaii have taken a class from me.

Hawaii Department of Commerce and Consumer Affairs

- Administrative Mediation Panel Member 08/2018-11/2018

Hawaii Department of Education

- 1998-2000 Group Leader for School-to-Work Career Pathways Project, Developed the Industrial & Engineering Technology Pathway. This IET pathway is still prominent as one of the Career Pathways available to all high school students in the state of Hawaii.

City and County of Honolulu

- 2000-2005 Member, Central Oahu Regional Park Advisory Committee
- 2019-2021 Member, Oahu Storm Water Utility Project – Advisory Group

Civic and Community Contributions

Mililani Town Association Director

- 2005-2016, 2019-2024 (elected 7 times): have served as Vice-President, Secretary, Treasurer, chair of Recreation Committee and Management & Personnel Committee

Village on the Green at Waialeale Condominium AOA Director

- 1996-2010 (elected 7 times): served as President (1), Vice-President (1), Treasurer (8)

Mililani Hongwanji Board of Directors

- 2005-present (elected 10 times): Secretary (2005-present), Baccalaureate Program Committee Member (2005, 2006, 2007, 2013, 2016), Dharma School Program Co-Director 2007-2020), Adopt-A-Highway program leader (2005-present)

Mililani Ike Elementary School

- 2006-2011 School Community Council member

Mililani Middle School

- 2009-2016 School Community Council chair

Mililani High School

- 2012-2020 School Community Council member

Mililani AYSO Region 9

- 2005-2011 Served as Age Group Coordinator and Board Member, coached 15 teams including Select teams

Mililani Basketball Association

- 2005-2011 Coached 15 teams

Waipio Little League

- 2005-2006 Coach

Cub Scout Pack 864

- 2004-2013 Committee Chair

Boy Scout Troop 664

- 2014-2018 Assistant Scoutmaster

Mililani Ike Red Cross Shelter Team

- 2006-2010 Member

Aloha Aquatics Mililani Swim Team

- 2013-2019 President