

Mark S. Kennedy

Donald P. Shiley School of Engineering
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EDUCATION:

Ph.D. Civil Engineering, Purdue University, 1984,
Dissertation: “The Effects of Advanced Wastewater Treatment on the West Fork, White River.”
M.S. Civil and Environmental Engineering, University of Wisconsin - Madison, 1979.
B.S. Civil Engineering, University of Nebraska - Lincoln, 1977.

ACADEMIC APPOINTMENTS:

Associate Dean, Shiley School of Engineering, University of Portland, Portland Oregon, 2015 - present.

Professor of Civil Engineering, Shiley School of Engineering, University of Portland, Portland Oregon, 2015 - present.

Associate Professor of Civil Engineering, Shiley School of Engineering, University of Portland, Portland Oregon, 1996 - present.

Associate Professor, Department of Civil and Environmental Engineering, South Dakota State University, Brookings, South Dakota, 1991 - 1996, (Tenure Granted 8/94, Promoted to Full Professor 5/96).

Assistant Professor, Department of Civil Engineering, The University of Akron, Akron, Ohio, 1984 - 1991, (Tenure Granted 8/90, Promoted to Associate Professor 8/91).

Instructor, Department of Civil Engineering, Rose-Hulman Institute of Technology, Terra Haute, Indiana, 1979 - 1980

COURSES TAUGHT:

University of Portland (undergraduate)

Analysis of Engineering Data
Engineering Fluid Mechanics
Environmental Engineering
Environmental Engineering Laboratory
Environmental Laboratory
Environmental Topics

Hydrology
Hydraulic Engineering
Introduction to Engineering
Senior Design
Water and Wastewater Design

South Dakota State University

(Undergraduate)

(Graduate)

Fluid Mechanics Laboratory
Hydraulic Engineering
Wastewater Engineering

Biological Principles of Environmental Engineering
Hazardous Waste Engineering
Water Quality Modeling

University of Akron

(Undergraduate)

(Graduate)

Water Supply and Pollution Control
Water and Wastewater Laboratory
Hydraulic Engineering

Water Quality Modeling
Environmental Engineering Design
Water and Wastewater Processes II
Advanced Water and Wastewater Lab

Rose-Hulman Institute of Technology

(Undergraduate)

Water and Wastewater Laboratory
Hydraulic Engineering
Fluid Mechanics
Statics

ADMINISTRATIVE APPOINTMENTS:

Director, International Programs in Engineering, Donald P. Shiley School of Engineering, 2012 – present.

Director, Summer Engineering Programs, Salzburg, Austria, 2006, 2008, 2010, 2013.

MASTERS THESES SUPERVISED:

"Fecal Coliform Destruction in Wastewater Biosolids Using Heat Treatment" Jeremy Wurpts, South Dakota State University, 1999.

"Dynamic Model of Final Clarifier Performance, Shimon Lou," South Dakota State University, 1996.

"Modeling the Fate and Transport of TNT in Soils," Jeffrey Gillen, South Dakota State

University, 1995.

"A Model for a Municipal Wastewater Nitrification Process," Osabuogbe Igbiniedion, South Dakota State University, 1993.

"Numerical Solute Transport Model for Analysis and Prediction of Artificial Recharge to a Glacial Aquifer," Girish Reddy, South Dakota State University' 1993.

"Modeling the Effects of Reservoir Mixing Characteristics on Water Quality in Water Distribution Systems," Scott Moegling, University of Akron, 1992.

DOCTORAL DISSERTATIONS SUPERVISED

"Hydrogeology of the Hardy Road Sanitary Landfill," Craig Rawlinson, University of Akron, 1990.

PUBLICATIONS:

Refereed Journal Articles

Jones, S.A., Sanford Bernhardt, K.L., Kennedy, M., Lantz, K., and Holden, T., "Collecting Critical Data to Assess the Sustainability of Rural Infrastructure in Low-Income Countries." *Sustainability*, 5, 4870, 2013.

Kennedy, M.S., et al., "Effects of Storage Tank Design on Water Quality," *Journal American Water Works Association*, 85, 7, 78, 1993.

Kennedy, M.S., et al., "Calibrating Hydraulic Analyses of Distribution Systems Using Fluoride Tracer Studies," *Journal American Water Works Association*, 83, 7, 54, 1991.

Kennedy, M.S., et al., "Parachlorophenol Degradation Using Bioaugmentation," *Research Journal of the Water Pollution Control Federation*, 62, 227, 1990.

Jackson, J.L., Bauder, J.R., Hardy, J., and Kennedy, M.S., "Field Studies: Hardy Road Landfill and Industrial Excess Landfill, A Superfund Site," *Ohio Journal of Science*, 89, 3, 45, 1989.

Arbuckle, W.B., and Kennedy, M.S., "Activated Sludge Response to a Parachlorophenol Transient," *Journal Water Pollution Control Federation*, 61, 476, 1989.

Kennedy, M.S., and Bell, J.M., "Effects of Advanced Wastewater Treatment of River Water Quality," *Journal Water Pollution Control Federation*, 58, 1138, 1986.

Editor Reviewed Publications

Co-Author, "Activated Sludge," *Journal Water Pollution Control Federation* - Literature Reviews, 1983 – 1989.

Referred Conference Proceedings

Male, J.W., and Kennedy, M.S., "Reliability of Rainwater Harvesting," *Eco-Architecture: Harmonization between Architecture and Nature*, WIT Press, Southhampton, UK, Volume 86 of WIT Transactions on The Built Environment (ISSN 1743-3509) 391, 2006.

Yamayee, Z.A., Albright, R.J., Inan, M.I., Kennedy, M.S., Khan, K.H., and Murty, D.V., "Work in Progress: Streamlining Assessment Process in Response to a Successful ABET Visit," 35th ASEE/IEEE Frontiers in Education Conference, 2005.

Kennedy, M.S., and Wurpts, J., "Reduction of Wastewater Sludge Pathogens Using Second-Stage Thermophilic Digestion," *Water Environment Federation Annual Conference, Conference Proceedings*, Chicago, IL, 1997.

Gillen, J.C., Tracy, J.C., and Kennedy, M.S., "Fate and Transport Model of TNT Contaminated Soils," *Hazardous Waste Research Conference*, U.S. EPA Hazardous Substance Research Center, Manhattan KS, 1995.

Kennedy, M.S., et.al. "Modeling Injectate Transport at an Artificial Ground Water Recharge Site," *American Society of Civil Engineers International Symposium on Artificial Recharge of Ground Water*, Orlando, FA, 1994.

Kennedy, M.S., et.al. "Reducing Wastewater Sludge Pathogens Using Heat Treatment," *Critical Issues in Water and Wastewater Treatment*, ASCE National Conference on Environmental Engineering, Boulder, CO, 1994.

Kennedy, M.S., et.al. "Effects of Storage Tank Design and Operation on Water Quality," *American Water Works Association Annual Conference*, San Antonio, TX, 1993.

Kennedy, M.S., Sarikelle, S., and Suravallop, K., "Travel Time Calibrations in Water Distribution Systems," *Water Quality Modeling in Distribution Systems, Technology Transfer Conference*, AWWARF and USEPA, Cincinnati, OH, 1991.

Kennedy, M.S., et.al. "Mixing Characteristics in Distribution System Storage Reservoirs," *American Water Works Association Annual Conference*, Philadelphia, PA, 1991.

Kennedy, M.S., Sarikelle, S., and Suravallop, K., "Calibration of Water Quality Models for Potable Distribution Systems," *American Water Works Association Annual Conference*, Cincinnati, OH, 1990.

Book Chapters

Simon, A.L., and Korom, S.F., “Hydraulics” 4th edition, Prentice-Hall, Upper Saddle River, NJ, reviewed and developed new problems for chapters 1 - 4, 1996.

Research Reports

Kennedy, M. S., and Jackson, Jim, “Leachate Migration from a Municipal Landfill: Environmental Impact Assessment and Management Strategy Development,” Final Report for the Ohio Water Development Authority and the City of Akron, Ohio, 1988.

PRESENTATIONS:

Refereed

Kennedy, M., and Jones, S., “Leveraging International Student Research into a Global Capstone Design Course,” AEESP 50th Anniversary Conference, July 14 - 16, Golden, Colorado, 2013

Sanford Bernhardt, K. L., Jones, S.A., Lantz, K., Pfaffmann, J.O., Ruebeck, C.S., Kennedy, M.S., “Multi-source Data Collection for Modeling Sustainability of Water Systems in Developing Countries” Engineering Sustainability, Innovation and the Triple Bottom Line, April 7-9, Pittsburgh, PA, 2013.

Male, J., and Kennedy, M.S., “Time Step Analysis for Rainwater Harvesting,” AWRP Annual Water Resources Conference, November 12 - 15, Jacksonville, FL, 2012.

Van De Grift, T., Male, J., Kennedy, M., Inan, I., and Hoffbeck, J., “A First-Year Design Project Combining LEGO® MINDSTORMS® Kits and Other Materials,” Pacific Northwest Section, American Society for Engineering Education, Portland, OR, 2012.

Kolmes, S., Butkus, R., and Kennedy, M., “Water and the Right to Water: An Interdisciplinary Assessment and Pedagogical Praxis,” AEESP Conference, Environment: The Interdisciplinary Challenge, Madison, WI, 2009.

Male, J., and Kennedy, M.S., Reliability of Rainfall Harvesting,” 39th AWRP Annual Water Resources Conference, San Diego, CA, 2003.

Bauer J.D., Kranenburg, D.J., MacIsaac, R.C., Kennedy, M.S., Male, J., “Analysis and Design to Correct Low Pressure in a Water Distribution System,” ASCE 2000 Joint Conference on Water Resources Engineering and Water Resources Planning, Minneapolis, MN, 2000.

Kennedy, M.S., “Second Stage Thermophilic Digestion,” 67th Annual Pacific Northwest Pollution Control Association Conference, Coeur d’Alene, ID, 2000.

Kennedy, M.S., et.al. “Thermophilic Anaerobic Digestion of Clarifier Skimmings,” 66th Annual

Pacific Northwest Pollution Control Association conference, Bellevue, WA, 1999.

Kennedy, M.S., et.al. “ A simplified Model for Pathogen Reduction in Thermophilic Anaerobic Digestion, 65th Annual Northwest Pollution control Association Conference, Portland, OR, 1998.

Kennedy, M.S., “Effects of Advanced Wastewater Treatment on the River Water Quality,” Water Pollution Control Federation Annual Conference, Kansas City, MO, 1985.

Invited

Kennedy, M.S., “Digestion, 101” Pacific Northwest Clean Water Association Annual Short School, Clackamas Community College, 2005 & 2006.

Kennedy, M.S., “Thermophilic Anaerobic Digestion: Theory and Applications,” Pacific Northwest Clean Water Association Annual Short School, Clackamas Community College, 2001.

Kennedy, M.S., “Reduction of Wastewater Sludge Pathogens Using Heat Treatment,” International Symposium on Industrialization and the Environment, Conference Proceedings, Teajon, South Korea, 1995.

Kennedy, M.S., “Hydraulic Considerations in the Design of Water Storage Reservoirs,” South Dakota Water and Wastewater Association Seminar for Water Treatment Plant Operators, Sioux Falls, SD, 1994.

Kennedy, M.S., “Using Waste Heat for Pathogen Reduction,” South Dakota Water and Wastewater Association Conference, Lead, SD, 1994.

Kennedy, M.S., Rawlinson, C., and Jackson, J., “Groundwater Quality Management at a Municipal Landfill,” One-day seminar sponsored by the University of Akron, Ohio Water Development Authority and the city of Akron, OH, 1988.

GRANTS:

National Science Foundation/International Research for Engineering Students, “Sustainable Development of Water and Sanitation Systems in Rural Honduras.” \$48,000, co-principal investigator, 2012.

City of Portland, Bureau of Environmental Services, “Second Stage Thermophilic Digestion,” \$11,500, principal investigator, 2000.

City of Portland, Bureau of Environmental Services, “Thermophilic Digestion of Primary Clarifier Skimmings,” \$5,750, principal investigator, 1999.

University of Portland, Butine Faculty Development Fund, “Comparison of Procedures for

Determining Reliable Water Supply Reservoir Yields,” \$6,100, co-principal investigator, 1998.

City of Sioux Falls, South Dakota, “Field Investigation of Sludge Pathogen Reductions Using Secondary Thermophilic Digestion,” \$23,185, principal investigator, 1995.

EPA/National Center for Integrated Bioremediation, Research and Development, “Use of C₂ to C₁₀ Organic Acids to Enhance Bioremediation of DNAPL Contaminated Aquifers,” \$162,777, co-investigator, 1995.

City of Sioux Falls, South Dakota, “Reduction of Wastewater Sludge Pathogens Using Heat Treatment,” \$19,956, principal investigator, 1992.

Ohio Board of Regents, “Bioremediation of Soil and Groundwater Contaminated by Toxic Wastes,” \$14,000, co-principal investigator, 1990.

City of Akron, Ohio, “Development of a Quality Model for Akron Water Distribution System,” \$94,000, principal investigator, 1990.

City of Avon Lake, Ohio, “Determining the Average Age of Water in a Distribution System,” \$7,500, principal investigator, 1990.

Cray Research Inc., “Computer Modeling of Contaminant Transport in Water Distribution Systems,” \$30,500, co-principal investigator, 1989.

Summit County, Ohio, “Strategies to Optimize Wastewater Treatment,” \$6,900, co-principal investigator, 1988.

Ohio Board of Regents, “Evaluating Bioaugmentation, ‘Super Bugs,’ for the Treatment of Toxic and Hazardous Wastes,” \$39,000, co-principal investigator, 1987.

City of Akron Ohio, and Ohio Water Development Authority, “Leachate Migration from a Municipal Landfill: Environmental Impact and Management Strategy Development,” \$126,000, principal investigator, 1986.

CONSULTING:

Tahoe Regional Planning agency – review of and comment on “*Lake Tahoe Basin Framework Study Wastewater Collection System Overflow/Release Reduction Evaluation*,” 2003.

Kittelson and Associates – Collection and Analysis of Trip Generation Data for Winco Stores in the Portland Metro Area, 2003.

AWS Engineering, Inc. - Determination of mass flow rates at Ft. James Paper Mill, 1999.

City of Shelby, OH - evaluation of coagulant dosage for achieving enhanced suspended solids

removal in activated sludge secondary clarification, 1986.

CONFERENCES, WORKSHOPS, PROFESSIONAL MEETINGS ATTENDED:

Educating Global Leaders – 14th Annual Colloquium on International Engineering Education, Brigham Young University, 2011.

IES Familiarization Trip for Engineering Studies Abroad Program in Madrid, Spain, 2009.

Engineers Without Borders – USA, West Coast Regional Conference, Portland, OR, 2007.

Collegium Summer Colloquy, San Diego, CA 1998.

Constructed Wetlands for Wastewater Treatment, NSF Funded Undergraduate Faculty Enhancement Program, Ft. Collins, CO, 1992 & 1993.

Association of Environmental Engineering Professors Workshop on Environmental Engineering Education, Oregon State University, 1990.

Landfill leachate and Gas Management Workshop, University of Wisconsin – Madison, Extension Division, 1984.

AWARDS, FELLOWSHIPS AND HONORS:

ASCE, Oregon Section, Civil Engineer of the Year, 2015

James Culligan Award for Distinguished Service, University of Portland, 2012.

ASUP Faculty Member of the Year, University of Portland, 2003.

Faculty Leadership Award, University of Portland, 1999.

David Ross Fellowship, Purdue University, 1982 & 1983.

PROFESSIONAL MEMBERSHIPS AND LICENSES:

American Society of Civil Engineers (National and Oregon Section).
Water Environment Federation.

Association of Environmental Engineering and Science Professors.

Tau Beta Pi (engineering honor society).

Chi Epsilon (civil engineering honor society).

Registered Professional Engineer, State of Ohio.

UNIVERSITY OF PORTLAND SERVICE:

Committee on Committees, 2014.

Presidential Search Committee, 2014.

CISGO Subcommittee on International Competencies, Co-Chair, 2013 to present.
 University Strategic Planning Committee, Advising and Mentoring, 2011.
 Collaborative for International Studies and Global Outreach, CISGO, 2010 to present.
 Fulbright Evaluation Committee, 2010 to present.
 Faculty Welfare Committee, 2010 – 2013.
 New Faculty Orientation, 2009, 2010.
 Casino Night, 2008, 2009.
 Honors Program Advisory Board, 2008.
 Chapel of Christ the Teacher Choir, 2008 - 2011
 Ad Hoc Committee on Senate Apportionment, 2007.
 Presidential Advisory Committee on Athletics' 2006 – present.
 Admissions Recruiting Trips (Eugene, OR 2006, Bellevue, WA, 2007).
 Task Force for Library Planning, 2006 – 2007.
 University Pep Band, 2006 - present
 University Concert Band, 2005 - 2010
 Freshman Service Day, Group Leader' 2005, 2009 – 2013.
 Self-Study Steering committee for the NCAA Division I Athletics Certification, 2005-2006.
 Academic Senate, Executive Committee, 1999 – 2003
 Committee on Curriculum and Academic Regulations, Chair, 1999 - 2003
 Ad Hoc Committee on Assessment, 1998 to 1999.
 Academic Senate, School of Engineering representative, 1997, 1998
 Presidential Committee on Health and Safety, 1997 - 1998.
 University Traffic Court, 1996 – 1998

SHILEY SCHOOL OF ENGINEERING SERVICE:

ASCE Pacific Northwest Regional Student Conf. Portland State University, April, 2014.
 Global Engineering Outcomes Committee, Chair, 2013 – Present.
 Acting CE Program Chair, Fall 2012.
 Study Abroad Liaison, 2011, 2012.
 Freshman Orientation, 2011 – 2013.
 Catholic Counselor Weekend, 2010 – 2013.
 President's Weekend on the Bluff, 2010 – 2014.
 Junior Parent Weekend, 2010 – 2014.
 ASCE Pacific Northwest Regional Student Conf. Washington State University, April, 2010.
 ASCE Pacific Northwest Regional Student Conf. University of Alaska, April, 2007.
 Faculty Adviser for Engineers without Borders, 2006 – 2013.
 ASCE Pacific Northwest Regional Student Conf. Montana Tech., April, 2006.
 ASCE Pacific Northwest Regional Student Conf. St. Martin's University, April, 2005.
 ASCE Pacific Northwest Regional Student Conf. Oregon Tech., April, 2004.
 Acting CE Department Chair, 2004.
 ASCE Pacific Northwest Regional Student Conf. Boise State University, April, 2003.
 ASCE Pacific Northwest Regional Student Conf. Idaho State University, April, 2002.
 School of Engineering Computer Committee, 2001 – 2002.
 ASCE Pacific Northwest Regional Student Conf. University of Idaho, April, 2001.
 ASCE Pacific Northwest Regional Student Conf. Gonzaga University, April, 2000.

School of Engineering Dean's Review Committee, 2000.
ASCE Pacific Northwest Regional Student Conf. University of Portland, April, 1999.
ASCE Pacific Northwest Regional Student Conf. University of Washington, April, 1998.
Washington County MESA visit to School of Engineering, April, 1997.
Freshman Design Competition, 1997 – 2013.

PROFESSIONAL AND COMMUNITY SERVICE:

City of Portland, Bureau of Environmental Services, External Review Committees, 2005.
University Park Neighborhood Association, 1998 – 2012.
St. Johns Family Shelter, 1997- 1998.
Columbia Blvd. Wastewater Treatment Plant Citizens Advisory Committee, 1997 – present.
Port of Portland Deicing Long Term Solutions Committee, 1997.
Big Sioux Water Festival, South Dakota, 1995.
ASCE, Secretary/Treasurer, Eastern Branch, South Dakota Section, 1991 – 1994.
Journal ASCE, peer review of manuscript, 1991.
International Association of Water Quality, peer review of manuscript, 1991 – 1998.
ASCE, Technical Advisory Committee for Akron-Canton Section, 1990, 1991.
Journal American Water Works Association, peer review of manuscripts, 1990 – 1993.
Water Environment Federation, peer review of manuscripts, 1989 – 1991.