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BIRTHPLACE

December 4, 1947
Amarillo, Texas

AREA OF SPECIALIZATION:

Water quality modeling and environmental software development.

EDUCATION

Ph.D. in Civil/Environmental Engineering, Texas A & M University, College Station, Texas, 1984 (Major Prof: Dr. Steve Chapra).

B.S. in Civil Engineering, Texas A & M University, College Station, Texas, 1981.

M.S. in Biology/Aquatic Biology, Southwest Texas State University, San Marcos, Texas, 1976.

B.S. in Wildlife Science, Texas A & M University, College Station, Texas, 1970.

SUMMARY OF QUALIFICATIONS AND EXPERIENCE:

James L. Martin, Ph.D., P.E., has over 30 years of experience in conducting and managing water quality modeling projects. Previously, he conducted studies while a Research Civil Engineer with the Water Quality and Contaminant Modeling Branch with the U.S. Army Corps of Engineers Waterways Experiment Station (WES), while Vice President and Director of Engineering with ASCl Corporation, and while a Research Environmental Scientist with the U.S Environmental Protection Agency at its Large Lakes Research Station. For five years he provided contract support to the U.S. EPA Center for Exposure Assessment Modeling through model development, providing technical assistance to the EPA, state and local agencies, and through model application. He has authored/co-authored over 100 technical reports and publications, including E.P.A. guidance documents and model user documentation. He is the former Editor of the ASCE Journal of Energy Engineering, former Chair of the Executive Committee, ASCE Energy Division, and former member of the ASCE Technical Activities Committee (TAC). He has been involved in the development of a number of hydrodynamic and water quality models in common usage. He is author of the textbook Hydro-Environmental Analysis: Fresh-Water Environments (December 2013), senior editor and author of Energy Production and Reservoir Water Quality (2007) and senior author of the textbook Hydrodynamics and Transport for Water Quality Modeling (1999). He is a Board Certified Environmental Engineer by the American Academy of Environmental Engineers, a Founding Diplomate of Water Resources Engineering by the American Academy of Water Resources Engineers, a Fellow of the Environmental and Water Resources Institute (EWRI), and Fellow of the American Society of Civil Engineers (ASCE). He is presently a Professor and Kelly Gene Cook, Sr. Chair in the Department of Civil and Environmental Engineering, Mississippi State University.

PROFESSIONAL REGISTRATION

Registered Professional Engineer in Florida (inactive, 46293)

Registered Professional Engineer in Georgia (inactive, 20491)

Registered professional Engineer in Mississippi (9949)

Founding Diplomate, Water Resources Engineer (00107), American Academy of Water Resource Engineers

Board Certified Environmental Engineer (18-E0004), American Academy of Environmental Engineers

PROFESSIONAL EXPERIENCE

Professor and Kelly Gene Cook, Sr. Chair in Civil and Environmental Engineering, Department of Civil and Environmental Engineering, Mississippi State University, 2001-present. Teaches and conducts research concerning water quality modeling and assessment.

Visiting Professor. Universiti teknologi Malaysia, Department of Civil Engineering, Skudai, Malaysia. July 2008 and July-August 2011.

Research Civil Engineer, US Army Engineer Research and Development Center, Waterways Experiment Station, Water Quality and Contaminant Modeling Branch, 1999-2001. Conducted research and applied studies concerning water quality modeling and assessment.

Vice President, AScl Corporation, 1993-1999. Assisted the President, AScl Corporation, in the overall management and operations of an international environmental contracting firm, headquartered in McLean, Virginia.

Director of Engineering, AScl Corporation, 1990-1993. Directed engineering operations of an international environmental contracting firm, headquartered in McLean, Virginia. Assisted in the planning of projects, communication with client offices, selection of staff and other corporate responsibilities. Conducted mathematical modeling studies and model development for various clients.

Manager, AScl Corporation at the USEPA Environmental Laboratory, Athens, Georgia, 1988-1990. Supervised multi-disciplinary staff and provided technical support for the Center for Exposure Assessment Modeling. Tested and refined exposure assessment techniques as well as provided training in assessment modeling for EPA and state personnel. Developed and applied mathematical models of contaminant transport and fate.

Research Environmental Scientist, Large Lakes Research Station, U.S. Environmental Protection Agency, 1986 - 1988. Served as Project Manager for a research team dealing with data acquisition and mathematical modeling of toxic substances in the Great Lakes as well as Project Officer for extramural research dealing with mathematical modeling activities. Acted as a consultant to the EPA and other government agencies on mathematical modeling and represented EPA on committees and work groups at the International level.

Civil Engineer, Water Quality Modeling Group, Environmental Laboratory, U.S. Army Engineer Waterways Experiment Station, 1984-1986. Involved in the development and application of water quality models. Served as principal investigator on studies of reservoir tailwaters, effects of peaking hydropower on fisheries habitat, riverine water quality under steady and unsteady flow, development and application of a two-dimensional hydrodynamic and water quality model, and other studies. Acted as a consultant to Corp offices and other government agencies on water quality and contaminant modeling.

Lecturer, Civil Engineering, Texas A & M University, 1984. Instructed courses in Engineering Analysis, Water Resources Engineering, Computer Applications in Engineering and Construction (Numerical Methods) and Environmental Engineering Laboratories.

Research Assistant, Civil Engineering, Texas A & M University, 1980-1984. Involved in collection and analysis of water, sediment, and biota samples for nutrients, trace metals, and selected organic contaminants; environmental impact assessment.

Teaching Assistant, Chemistry, Texas A & M University, 1979. Instructed laboratories in inorganic chemistry.

Biology Instructor, Victoria Texas C.I.S.D., 1976-1979. Instructed secondary courses in Biology.

Laboratory Instructor, Biology, Southwest Texas State University, 1974-1976. Instructed laboratories in Biology, Mammalogy, Wildlife Management, and Field Biology.

Science Instructor, Nixon, Texas I.S.D., 1971-1974. Instructed secondary courses in Mathematics, Physics, Earth Science, and Chemistry.

MILITARY EXPERIENCE

Texas Army National Guard (Enlisted, SP 5), 1st Battalion (Airborne Infantry), 143d Infantry, 1971-1977.

AWARDS AND HONORS

- Sigma Xi – Member
- Certificate of Commendation, Department of the Army, June 1996
- AScl Award for Distinguished Achievement, 1991
- Certification of Appreciation, American Society of Civil Engineers, Environmental Management, 1996
- Certificate of Commendation, Department of the Army, June 1999
- Certificate of Commendation, Department of the Army, June 2000
- Hydraulic Achievement Award 2004, Mississippi American Society of Civil Engineers
- Elected Fellow, American Society of Civil Engineers (F. ASCE), July 2005
- Founding Diplomate, Water Resources Engineering (D. WRE), American Academy of Water Resources Engineers (October 2005)
- Elected to Bagley College of Engineering Academy of Fellows, Mississippi State University, February 2006 and again in April 2016.
- Elected to GeoResources Institute Research Fellow, Mississippi State University (2008)
- Nominated by College of Engineering for the MSU Faculty Achievement Award (2012)
- Nominated by College of Engineering for the Giles Distinguished Professorship (2013)
- Elected to Bagley College of Engineering Academy of Distinguished Teachers (2013)
- Elected Fellow, Environmental and Water Resources Institute (F. EWRI), May, 2016
- American Society of Civil Engineers Samuel Arnold Greeley Award “For the paper “Modeling the Factors Controlling Phytoplankton in the St. Louis Bay Estuary, Mississippi and Evaluating Estuarine Responses to Nutrient Load (co-author), 2016

PROFESSIONAL SERVICE

American Society of Civil Engineers

- Fellow, American Society of Civil Engineers (2005-present)
- Member, American Society of Civil Engineers (1985-2005)
- Editor-in-Chief, ASCE Journal of Energy Engineering (2002-2005)
- Chair, Energy Division, Executive Committee (2005-2006)
- Past-Chair, Executive Committee, Energy Division (2006-2007)
- Member, Editorial Board, Energy Division (2002-2007)
- Chair, Environmental Effects Committee, Energy Division (2005-2007)
- Member, Task Committee on Energy Production and Reservoir Water Quality (2002-2007)
- Chair, ASCE Paper Awards Committee (2007-2010)
- Member, ASCE Visioning Implementation Subcommittee (2007-2010)
- Member, ASCE Technical Activities Committee (2007-2010)
- Member- ASCE COPRI Marine Renewable Energy - In Stream Hydrokinetic Subcommittee Member (2010-Present)
- Member-ASCE EWRI Total Maximum Load Task Committee (2012-present)
- Member-ASCE EWRI Watershed Management Technical Committee (2015-Present)
- Reviewer for Journal of Environmental Engineering
- Reviewer for Journal of Energy Engineering

North American Lake Management Society

- Member and Associate Editor

Sigma Xi – Member

- Delegate, Universities Council on Water Resources (UCOWR).

Mississippi Department of Environmental Quality

- Member, Mississippi Department of Environmental Quality's Nutrient Task Force (2004-2016)

UNIVERSITY SERVICE

- MSU University Service
 - Elected Member Robert Holland Faculty Senate Faculty Senate (2005-2007, 2013-2015)
 - Student Affairs committee, Robert Holland Faculty Senate (2005-2007).
 - University P&T Committee (2009-2012)
- College of Engineering
 - University P&T Committee (2007-2010)
 - Distance Education Committee (2007-2010)
 - Dean Search Committee (2014-2015)
 - BCOE Graduate Student Hall of Fame Selection Committee (2014-present)
- Department of Civil and Environmental Engineering
 - Chair of CE Department Scholarship Committee (2007-present)
 - Chair of CE Department Graduate Committee (2007-present)
 - Member, CE Department P&T Committee (2012-2017)
 - Chair, CE Department P&T Committee (2017-present)
 - Graduate Coordinator (2007-present)

PANELS AND ADVISORY BOARDS

- Member, June 1999-August 2001, Peer Review Panel, Total Maximum Daily Load Group, Modeling Studies of the Savannah Harbor (invited and funded participant by CE District Savannah and USEPA Region 4)
- Member, June 1999-August 2001, Modeling Technical Review Panel, Modeling Studies of the Savannah Harbor (invited and funded participant by CE District Savannah)
- Member, June 2001-Present, American Society of Civil Engineers, Energy Engineering Division (EY), Committee on Environmental Effects, Task Committee For Developing Guidelines Manual on Reservoir and River Hydrodynamic and Water Quality Modeling Related to Energy Production (product to be Guidelines Manual).
- Member, August 2001-2002, Expert Review Panel, Delaware Estuary Water Quality Model, Delaware River Basins Commission (invited and funded participant in November 29-30, 2001 peer review meetings) Member, August 2001-2002, Expert Review Panel, Delaware Estuary Water Quality Model, Delaware River Basins Commission (invited and funded participant in November 29-30, 2001 peer review meetings)
- Member, September-December, 2001, Review Panel for Workshop for Development of a Water Budget for Tampa Bay, Florida, Tampa Bay National Estuary Program (NEP), Tampa, FL (invited panelist, at December 4-5, 2001 meeting to aid in synthesizing workshop recommendations and developing research plans for the NEP)
- Member, Expert Panel on Simplified Approaches for Modeling Sediment Movement, Joint EPA/COE Workshop on Sediment Processes, New Orleans, LA, January 22-24, 2002 (Panel product was white paper).

- Member, Invited Participant in Modeling Session in workshop “Science to Support Nutrient-Management Decisions Related to Hypoxia in the Northern Gulf of Mexico and Water Quality in the Mississippi River Basin,” October 16-18, 2002, St. Louis, MO.
- Invited Peer Review Panelist, “LOTOX 2 Peer Review Session,” July 16-17, 2003, New York City, NY.
- Invited Peer Review Panelist, U.S. Environmental Protection Agency, Great Lakes National Program Office, peer review of the Lake Michigan Mass Balance PCB Modeling. 2004.
- Invited Peer Review Panelist, Environmental Protection Agency, Office of Water, draft cumulative impacts analysis (CIA) report for the Uniform National Discharge Standards (UNDS; coordinated by Versar). 2004.
- Invited Peer Review Panelist, St. Johns Water Management District's model evaluation group for the Indian River Lagoon studies. 2004-2005.
- Member, August 2001-Present, Expert Review Panel, Delaware Estuary PCB Model, Delaware River Basins Commission (invited and funded participant).
- Invited Expert Review, 2008. Modeling studies of Bow River, Alberta, CA.
- Invited Expert Review. 2010. Provided review of modeling group of Universidad Nacional de Colombia within the framework of the project for “Dynamic water quality modeling of the River Bogotá” developed for the Water Utility Empresa de Acueducto y Alcantarillado de Bogotá, EAAB by Universidad Nacional de Colombia – Bogotá, March 2010, Bogota, Colombia.
- Invited Expert Review, 2008-2011. Proposed Surface Water Withdrawals from the St. Johns and Ocklawaha Rivers, St. Johns River Water Management District, Palatka, FL
- Subject Mater Expert, 2010-2016, Tampa Bay Studies, Tampa Bay National Estuary Program and Southwest Florida Water Management District
- Invited Expert Review, 2016, ASCE Manual of Practice titled "Inland Navigation Environmental Sustainability", for Waterways Committee; Coasts, Oceans, Ports, and Rivers Institute, ASCE.
- Invited Expert Review, 2016. Review of “Using a Computer Water Quality Model to Derive Numeric Nutrient Criteria, Upper and Middle Yellowstone River,” for USEPA through Tetra Tech.
- Invited Peer Review. April 2016-Present. Eutrophication study and loads to Chesapeake Bay from Lower Susquehanna River Modeling (Peer Review, for Chesapeake Research Consortium).
- Invited Member, 2017. Scientific and Technical Advisory Committee Chesapeake Bay Watershed Model Phase 6 Review Panel. USEPA Chesapeake Bay Program.

EXPERT TESTIMONY

- Law Environmental, Atlanta, Georgia: Provided expert review of modeling studies on the Dugdemona River, Louisiana (January-March 2002).
- Southeast Clean Water Network, Tallahassee, FL: Provided expert review, deposition and court testimony related to modeling studies used in development of a discharge permit to the Lower St. Johns River, FL. (January through February 2002).

PUBLICATIONS: ENVIRONMENTAL SOFTWARE

Public Domain

1. **MICHRIV**: A screening level model for metals transport in rivers. Co-author of final documentation. Distributed by U.S. EPA Large Lakes Research Station, Grosse Ile, MI.
2. **STEADY**: A screening level model for dissolved oxygen and temperature in rivers. Author of code and documentation. Distributed by U.S. Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
3. **WASP**: A generalized modeling framework for modeling eutrophication and organic chemicals in surface waters. Co-author of documentation and code (Versions 4-8). Distributed by U.S. EPA Center for Exposure Assessment Modeling (CEAM), Athens, GA
4. **META4**: A generalized modeling framework for modeling metals transport and speciation in surface waters. Co-author of documentation and code. Distributed by U.S. EPA Hazardous Waste Reduction Laboratory, Cincinnati, OH.
5. **FLWASP**: A generalized modeling framework for modeling eutrophication and solids transport. Co-author of documentation and code. Distributed by South Florida Water Management District, West Palm Beach, FL.
6. **CE-QUAL-ICM**: Organic Chemical Model, a generalized model of organic contaminants specifically designed for coupling with multi-dimensional hydrodynamic models. Contributor to organic chemical model and co-author of user documentation. Distributed by U.S. Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
7. **CE-QUAL-W2**: A two-dimensional (x/z) hydrodynamic and water quality (eutrophication) model. Principal author of Version 1.0 and model code. Distributed by U.S. Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
8. **CE-QUAL-RIV1**: A one-dimensional hydrodynamic and quality model. Contributing author and code developer for Version 1.0-3.0 and documentation. Distributed by U.S. Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
9. **EPD-RIV1**: A one-dimensional hydrodynamic and quality model. Senior author of user documentation and code (based on CE-QUAL-RIV1). Distributed by Georgia

Environmental Protection Division, Atlanta, GA.

10. **RIVMOD**: A one-dimensional hydrodynamic model for rivers. Co-author of user documentation. Distributed by U.S. EPA Center for Exposure Assessment Modeling (CEAM), Athens, GA
11. **STREAM**. A one-dimensional dissolved oxygen model for streams and rivers. Co-author of model and user documentation. Mississippi Department of Environmental Quality, TMDL/WLA Branch, Surface Water Division.
12. **LAKE2K**, a one-dimensional (vertical) reservoir water quality model. Co-author of model and user documentation (with Steve Chapra and Rene Camacho)

Proprietary

1. **OMNIWASP**: A modified version of the WASP eutrophication model including the impact of macrophytes. Co-author of documentation and code. Developed for Omni Environmental, Princeton, New Jersey.
2. **WIN/WASP +**. A modified version of WASP developed for Windows95, Contributor to code development and design. AScl Corporation, Environmental Engineering Division, Athens, GA.
3. **STEADY-STATE**: A modified version of the WASP organic chemical model (TOXIWASP) designed to compute steady-state concentration distributions in water and sediment. Principal developer. Developed for Hart Crowser, Seattle, WA.

PUBLICATIONS: TECHNICAL BOOKS

1. Dortch, M.S. and **J.L. Martin**. 1988. "Water quality modeling in regulated stream environments", In: Alternatives in Regulated Flow Management (Ed. J.A. Gore). CRC Press, Boca Raton, FL.
2. Medine, Allen J., **Martin, James L.**, 2002. Development of the Metal Speciation-based Metal Exposure and Transformation Assessment Model (META4): Application to Copper and Zinc Problems in the Alamosa River, Colorado. In: Fate and Transport of Chemicals in the Environment: Impacts, Monitoring and Remediation. R.L. Lipnick, R.P. Mason, M.L. Phillips, and C.U. Pittman (Eds.) ACS Publications, Washington.
3. McCutcheon, S.C., **J.L. Martin** and T.O. Barnwell, Jr. 1993. "Water Quality," In Handbook of Hydrology (Ed. D.R. Maidment), McGraw-Hill, New York, NY, pp. 11.1-11.73.
4. **Martin, J.L.** and S.C. McCutcheon. 1999. Hydrodynamics and Transport in Water Quality Modeling CRC Press, Boca Raton, FL, 794 p.
5. French, R, S.C. McCutcheon, and **J.L. Martin**. 1999. "Environmental Hydraulics," In: Hydraulic Design Handbook (Ed. L.W. Mays), McGraw-Hill, New York, NY, pp.5.1-5.31.

6. **J. L. Martin**, J. Edinger, J. A. Gordon and J. Higgins (Editors). 2007. Energy Production and Reservoir Water Quality, American Society of Civil Engineers, Reston, VA.
 - a. **James L. Martin**, Craig Hesterlee and Jeffery A. Ballweber. 2007. "Chapter 2: Energy Production, Reservoir and River Water Quality: Regulatory Framework," IN: J. L. Martin, J. Edinger, J. A. Gordon and J. Higgins (Editors). 2007. Energy Production and Reservoir Water Quality, American Society of Civil Engineers, Reston, VA.
 - b. Scott Wells, J. Russell Manson and **James L. Martin**. 2007. "Chapter 4: Energy Production, Reservoir and River Water Quality: Numerical Hydrodynamic and Transport Models for Reservoirs," IN: J. L. Martin, J. Edinger, J. A. Gordon and J. Higgins (Editors). 2007. Energy Production and Reservoir Water Quality, American Society of Civil Engineers, Reston, VA.
 - c. John Eric Edinger, **James Martin**, and Gregory Pelletier. 2007. "Chapter 5: Energy Production, Reservoir and River Water Quality: Water Quality Modeling Theory," IN: J. L. Martin, J. Edinger, J. A. Gordon and J. Higgins (Editors). 2007. Energy Production and Reservoir Water Quality, American Society of Civil Engineers, Reston, VA.
 - d. Edward Buchak, Jerad Bales and **James Martin**. 2007. "Chapter 6: Energy Production, Reservoir and River Water Quality: Modeling Systems and Their Application," IN: J. L. Martin, J. Edinger, J. A. Gordon and J. Higgins (Editors). 2007. Energy Production and Reservoir Water Quality, American Society of Civil Engineers, Reston, VA.
7. Alarcon, V. J., McAnally, W. H., Diaz-Ramirez, J., **Martin, J.**, & Cartwright, J. H. 2009. A Hydrological Model of the Mobile River Watershed. In G. Maroulis, T.E. Simos (Eds.), Computational Methods in Science and Engineering: Advances in Computational Science. Paramus, New Jersey: American Institute of Physics. Volume 1148, 641-645.
8. Alarcon, V. J., McAnally, W. H., Wasson, L. L., **Martin, J.**, & Cartwright, J. H. 2009. Using NEXRAD Precipitation Data for Enriching Hydrological and Hydrodynamic Models in the Northern Gulf of Mexico. Computational Methods in Science and Engineering: Advances in Computational Science (Maroulis, G. and Simos, T. E., Eds.). American Institute of Physics. Volume 1148, 646-650.
9. Aziz, W., Alarcon, V. J., McAnally, W. H., **Martin, J.**, & Cartwright, J. H. 2009. An Application of the Mesh Generation and Refinement Tool to Mobile Bay, Alabama, USA. Computational Methods in Science and Engineering: Advances in Computational Science (Maroulis, G. and Simos, T. E., Eds.). Paramus, New Jersey: American Institute of Physics. Volume 1148, 651-656.
10. **Martin, J.L.** 2013. Hydro-Environmental Analysis: Freshwater Environments. CRC Press. Boca Raton, Fl. 567 pages (December 11, 2013). ISBN-10: 1482206072
11. **Martin, J.L.** TBD. Hydro-Environmental Analysis: Estuaries and Coastal Systems. Under development

PUBLICATIONS: BOOKS (NON-TECHNICAL)

1. Martin, James, Joyce Martin. 2007. Backyard Visions: The Ruby-Throated Hummingbird. ISBN 978-1-4303-1769-2, Lulu.com, Rochester, NY. 96 pp.
2. Martin, James, Joyce Martin. 2007. The Rookery at Noxubee Wildlife Refuge. ISBN 978-1-4303-2356-3, Lulu.com, Rochester, NY. 100 pp.
3. Martin, James, Joyce Martin. 2007. Images of North American Big Game. ISBN 978-1-4357-0076-5, Lulu.com, Rochester, NY, 108 pp.
4. Martin, James, Joyce Martin. 2008. The Red-cockaded Woodpecker at Noxubee National Wildlife Refuge, Lulu.com, Rochester, NY. 32 pp.
5. Martin, James, Joyce Martin. 2008. The Eagles at Noxubee NWR: Our 2008 Diary, Lulu.com, Rochester, NY. 56 pp.
6. Martin, James, Joyce Martin. 2014. The Great American Bluebird, Blurb.com, 32 pp.
7. Martin, James, Joyce Martin. 2014. Hummingbirds of the U.S.A., a Pictorial Essay, Lulu.com, Rochester, NY. 88 pp.

PUBLICATIONS: THESIS/DISSERTATION

1. **Martin, J.L.** "An analysis of the community and population dynamics of the helminths of Sigmodon hispidus (Rodentia: Cricetidae) from the area of San Marcos, Texas", M.S. Thesis, Southwest Texas State University, San Marcos, TX, 112 p., 1976.
2. **Martin, J.L.** "Models of diel variations of water quality in a stratified eutrophic reservoir (Lake Livingston, Texas)", Ph.D. Dissertation, Texas A & M University, College Station, TX, 359 p., 1984.

PUBLICATION: JOURNALS

1. **Martin, J.L.** and J. Ilika. "Review: Ayers, D.M. Bioscientific Terminology" Reading World, 14: 28, 1974.
2. **Martin, J.L.** and D.G. Huffman. "An analysis of the community and population dynamics of the helminths of Sigmodon hispidus (Rodentia: Cricetidae) from three central Texas vegetational regions", Proceedings of the Helmintho. Soc. Wash. 47: 247-255; 1980.
3. **Martin, J.L.**, B. Batchelor and S.C. Chapra. "Modification of a metal adsorption model to describe the effect of pH." J. Water Poll. Control Fed.: pp. 425-427; 1985.
4. **Martin, J.L.** "Application of a two-dimensional model to DeGray Lake, Arkansas." Am. Society Civil Engineers, Journal of the Environmental Engineering Division. Vol. 114(2), pp. 317-336; April 1988.

5. **Martin, J.L.**, W.L. Richardson, S.C. McCutcheon and J.F. Paul. "Modeling Studies for Planning: The Green Bay Project," Water Resources Bulletin 27(3), pp. 429-436, June 1991.
6. Wang, P.F. and **J.L. Martin**. "Temperature and Conductivity Simulations of the Buffalo River, NY," J. Great Lakes Research 17(4), pp. 495-503, Dec. 1991.
7. Velleux, M.L., J.E. Rathbun, R.G. Kreis, Jr., **J.L. Martin**, M.J. Mac, and M.L. Tuchman. "Investigation of Contaminant Transport from the Saginaw Confined Disposal Facility," J. Great Lakes Research 19(1), pp. 158-174, 1993.
8. Lung, W.S., **J.L. Martin** and S.C. McCutcheon. "Eutrophication and Mixing Analysis of Embayments in Prince Williams Sound, Alaska," ASCE J. Environmental Engineering Division. 119(5), pp. 811-824, 1993.
9. James, R. T., **J.L. Martin**, T. Wool and P.F. Wang. "A Sediment Resuspension and Eutrophication Model of Lake Okeechobee," J. American Water Resources Association, 33(3), pp. 661-680, 1997.
10. Wang, P.F., **J.L. Martin**, T.A. Wool and T. Mill. "Fate and Transport of Metam Spill in the Sacramento River," ASCE J. Environmental Engineering Division, pp. 704-712, July 1997.
11. Wang, P.F., **J.L. Martin**, and T. Wool. "Water Quality Modeling and Eutrophication in Tampa Bay, Florida," Estuarine, Coastal and Shelf Science, 49, pp. 1-20, 1999.
12. **Martin, J.L.** and C. Hesterlee. "Energy Production And Reservoir And River Water Quality: Regulatory Framework," ASCE J. Energy Engineering, 129(3), pp. 33-59, 2002.
13. **Martin, J.L.** "Linear Superposition in TMDL Applications: The Steady-State Response Matrix Revisited," J. American Water Resources Association 43(5), pp. 1270-1279, 2007.
14. J. N. Diaz - Ramirez, V. J. Alarcon, Z. Duan, M. L. Tagert, W. H. McAnally, **J. L. Martin**, C. G. O'Hara, 2008. "Impacts of Land Use Characterization in Modeling Hydrology and Sediments for the Luxapallila Creek Watershed, Alabama and Mississippi," Transactions of the American Society of Agricultural and Biological Engineers, Vol. 51(1): 139-151
15. Alarcon V. J., McAnally, W., Diaz-Ramirez, J., **Martin, J.**, Cartwright, J., 2008. A Hydrological Model of the Mobile River Watershed, Southeastern USA. Proceedings ICCMSE 2008, American Institute of Physics.
16. Alarcon V. J., McAnally, W., Wasson, L., **Martin, J.**, Cartwright, J., 2008. Using NEXRAD Precipitation Data for Enriching Hydrological and Hydrodynamic Models in the Northern Gulf of Mexico. Proceedings ICCMSE 2008, American Institute of Physics.
17. Aziz, W., Alarcon V. J., McAnally, W., **Martin, J.**, Cartwright, J., 2008. An Application of the Mesh Generation and Refinement Tool to Mobile Bay, Alabama, USA. Proceedings ICCMSE 2008, American Institute of Physics.
18. Duan, Z., Jairo N. Diaz, **James L. Martin** and William H. McAnally. 2008. "Effects of Land-Use Change on St. Louis Bay Watershed Simulations," Journal of Coastal Research, Special Issue 52, pp. 117-124.

19. Diaz-Ramirez, Jairo, Zhiyong Duan, William McAnally, and **James Martin**, 2008. "Sensitivity of the HSPF Model to Land Use/Land Cover Datasets," *Journal of Coastal Research*, Special Issue 52, pp. 89-94.
20. Diaz-Ramirez, J.N., V. Alarcon, Z. Duan, M.L. Tagert, W. H. McAnally, **J. L. Martin**, and C.G. O'Hara. 2008. Impacts of Land Use Characterization in Modeling Hydrology and Sediments for the Luxapallila Creek Watershed, Alabama/Mississippi. *Transactions of the ASABE* 51(1): 139-151.
21. Duan, Zhiyong, **James L. Martin**, William H. McAnally, and Richard L. Stockstill. 2009. Combined Effects of Wind and Streamflow on Gas-Liquid Transfer Rate, *J. Envir. Engrg.* Volume 135, Issue 8, pp. 653-659 (August 2009)
22. Duan, Zhiyong, **James L. Martin**, Richard L. Stockstill, William H. McAnally, David H. Bridges. 2009. Modeling Streamflow-Driven Gas-Liquid Transfer Rate, *Environmental Engineering Science*. January 2009, 26(1): 155-162\
23. Diaz-Ramirez, J.N., B.E. Johnson, W.H. McAnally, **J.L. Martin**, V.J. Alarcon, and J.J. Ramirez-Avila. Global Parameter Sensitivity and Uncertainty of the USEPA HSPF Model: A Hydrology Model Evaluation in Alabama and Mississippi. Submitted to *Environmental Modeling & Software* [In review since March, 2009).
24. Wilkerson, G. Wayne, William H. McAnally, **James L. Martin**, Jeff A. Ballweber, Kim Collins Pevey, Jairo Diaz-Ramirez, and Austin Moore. 2010. "Latis: A Spatial Decision Support System to Assess Low-Impact Site Development Strategies," *Advances in Civil Engineering*, Volume 2010 (2010), Article ID 810402, 18 pages.
25. Edinger, John E. and **James L. Martin**. 2010. "Effects of the Addition of Multi-Slip Docks On Reservoir Flushing and Water Quality: Hydrodynamic Modeling; Aquatic Impact; Regulatory Limits," *Journal of Transdisciplinary Environmental Studies* vol. 9, no. 1, 2010
26. Diaz-Ramirez, J.N., W.H. McAnally and **J.L. Martin**. 2011. "Analysis of Hydrologic Processes Applying the HSPF Model in Selected watersheds in Alabama, Mississippi and Puerto Rico," *Applied Engineering in Agriculture*, vol. 27(6), pp. 937-954.
27. Yi Xiong, Vladimir J. Alarcon, **James L. Martin**, William H. McAnally. 2012. "WASP_SEDDEER: Incorporation of SEDDEER into WASP," *Energy and Environment Research*, Vol 2, No 1, 157-181.
28. Camacho, Rene A. and **James L. Martin**. 2012. "Hydrodynamic Modeling of First Order Transport Time Scales in the St. Louis Bay Estuary, Mississippi, the ASCE J. Environmental Engineering, 10.1061/(ASCE)EE.1943-7870.0000647
29. Diaz-Ramirez, Jairo N., William McAnally, and James Martin. 2012. "Sensitivity of Simulating Hydrologic Processes to Gauge and Radar Rainfall Data in Subtropical Coastal Catchments," *Water Resour Manage* (2012) 26:3515–3538.
30. Xiong, Y. V. J. Alarcon, J. L. Martin, W. H. McAnally. 2012. "SEDDEER: A Sediment Transport Model for Water Quality Modeling," *Transactions ASABE*, Vol. 55(6): 2147-2161.

31. Diaz-Ramirez, J., Camacho, R., McAnally, W. and Martin, J. 2012. "Parameter uncertainty methods in evaluating a lumped hydrological model. *Obras y Proyectos* 12, 42-56
32. Camacho, R.A. and Martin, J.L., 2013. Bayesian Monte Carlo for evaluation of uncertainty in hydrodynamic models of coastal systems. *Journal of Coastal Research*, Special Issue No. 65
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69. Ramírez-Avila J.J., W.H. McAnally, **J.L. Martin**, E. Langendoen, S.L. Ortega Achury, and J.N. Díaz-Ramírez. 2009. Northern Gulf Institute Annual Conference, Biloxi, May 20-21. Meeting of the Northern Gulf Institute, MSU, MS. [Poster].
70. J. M. Prince, J. D. Madsen, D. R. Shaw, J. L. Harvill, G. E. Ervin, **J. L. Martin**, and S. A. Samson. Modeling Eurasian Watermilfoil (*Myriophyllum spicatum*) with Geographic Information Systems. Midsouth Aquatic Plant Management Society Conference. Sep. 15-17, 2009, Lake Guntersville State Park, AL.

71. Diaz-Ramirez, J.N., W.H. McAnally, and **J.L. Martin**. 2010. "Rainfall Database Effects on Hydrology Simulation in a Small Coastal Catchment," Alabama Water Resources Conference, September 8-10, Perdido Beach Resort, Orange Beach, Alabama.
72. Diaz-Ramirez, J.N., W.H. McAnally, **J.L. Martin**, K. McNeal, J.E. Ezell, J. Sharp, K. Pevey, M. Follum, and S. Phipps. 2010. "Assessment of Weeks Bay and Its Watershed, Alabama," Alabama Water Resources Conference, September 8-10, Perdido Beach Resort, Orange Beach, Alabama. [Poster].
73. Diaz-Ramirez, J.N., W.H. McAnally, and **J.L. Martin**. 2010. "Hydrological Modeling of Coastal Catchments in Alabama," Northern Gulf Institute Annual Conference, Mobile, May 18-20. Meeting of the Northern Gulf Institute, MSU, MS.
74. Diaz-Ramirez, J.N., B.E. Johnson, W.H. McAnally, and **J.L. Martin**. 2010. "Comparison of Lumped and Distributed Hydrologic Models for the Runoff Simulation of a Large Watershed in Alabama and Mississippi," Northern Gulf Institute Annual Conference, Mobile, May 18-20. Meeting of the Northern Gulf Institute, MSU, MS.
75. McAnally, W.H., J. Cartwright, R. Jackson, **J. Martin**, and J.N. Diaz-Ramirez. 2010, "Sulis - A Tool for Healthy Watersheds, Healthy Oceans, Healthy Ecosystems," Northern Gulf Institute Annual Conference, Mobile, May 18-20. Meeting of the Northern Gulf Institute, MSU, MS. [Presentation and Poster]
76. Ramírez-Avila, J. J, E. J. Langendoen, W. H. McAnally, **J. L. Martin** and S. L. Ortega-Achury, 2010. "A Sediment Budget for Town Creek Watershed: Preliminary Results from Streambank Erosion Processes and Rates Assessment," ASABE Annual International Meeting.
77. Diaz-Ramirez, J.N., W.H. McAnally, J.L. Martin, K. McNeal, J.E. Ezell, J. Sharp, K. Pevey, M. Follum, and S. Phipps. 2010. "Assessment of Weeks Bay and Its Watershed, Alabama," Alabama Water Resources Conference, September 8-10, Perdido Beach Resort, Orange Beach, Alabama. [Poster].
78. Ramírez-Avila, J. J, E. J. Langendoen, W. H. McAnally, J. L. Martin and S. L. Ortega-Achury, 2010. "A Sediment Budget for Town Creek Watershed: Preliminary Results from Streambank Erosion Processes and Rates Assessment," ASABE Annual International Meeting.
79. Salazar, G., A. Moore, W. Wilkerson, J. Diaz-Ramirez, and **J. Martin**. 2010. "Developing a User-Friendly Tool for BMP/LID Modeling Using VBA Programming," Northern Gulf Institute Annual Conference, Mobile, May 18-20. Meeting of the Northern Gulf Institute, MSU, MS. [Poster]
80. Diaz-Ramirez, J.N., W.H. McAnally, **J.L. Martin**. 2010. "A Review of HSPF Evaluations on the Southern United States and Puerto Rico. 21st Century Watershed Technology: Improving Water Quality and the Environment," February 21-24, Costa Rica. Meeting of the ASABE and EARTH University
81. Ramirez-Avila, J. J., McAnally, W. H., Langendoen, E. J., Ortega-Achury, S. L., & Martin, J. (2011). "Assessment and Prediction of Streambank Erosion Rates in the Town Creek Watershed." 2011 NGI Annual Conference. Mobile, AL: Northern Gulf Institute.

82. Ramirez-Avila, J. J., McAnally, W. H., Langendoen, E. J., Ortega-Achury, S. L., & Martin, J. (2011). "Changes in Suspended Sediment Transport in the Town Creek Watershed: Interpretation of Sediment Rating Curves," 2011 NGI Annual Conference. Mobile, AL: Northern Gulf Institute.
83. Alarcon, V. J., McAnally, W. H., Xiong, Y., & Martin, J. (2011). Modeling and Simulation of Hydrodynamics and Dye Transport in Grand Bay, MS, and Perdido Bay, FL. 2011 Northern Gulf Institute Conference. Mobile, AL.
84. McAnally, W. H., Evans, D., Martin, J., Sloan, J., & Alarcon, V. J. (2011). Sediment and Mercury Path and Fate Modeling. 2011 Northern Gulf Institute Conference. Mobile, AL.
85. Ramírez-Avila, J. J., E.J. Langendoen, W. H. McAnally, S.L. Ortega-Achury, J.L. Martin, R. Bingner. 2012. Assessing and Modeling Sediment Loads from Stream Corridor Erosion along the Town Creek in Mississippi. 2012 Mississippi Water Resources Conference. Jackson, Mississippi, April 3-4, 2012.
86. Ramírez-Avila, J. J., S.L. Ortega-Achury, W. H. McAnally, J.L. Martin, J. Diaz. 2012. Runoff Quality Effects of Simulated Conservation Practice Scenarios in a Mississippi Delta's Watershed. 2012 Mississippi Water Resources Conference. Jackson, Mississippi, April 3-4, 2012.
87. Pérez-Gutiérrez, Juan D., James L. Martin, and John J. Ramirez-Avila. 2015. "A Review of the Technical Approaches Used for TMDLs Development in Mississippi," ASABE Annual International Meeting, New Orleans, Louisiana, July 26 – 29, 2015
88. Martin, James L., Deva K. Borah, Edith Martinez-Guerra and Juan D. Pérez-Gutiérrez. 2015. "TMDL Modeling Approaches, Model Surveys, and Advances," World Environmental and Water Resources Congress 2015: Water without Borders, Reston, VAS
89. Laurens, Luis, Sandra Ortega, James L. Martin, and John Ramirez-Avila. 2016. "A Demonstration Project: Measurement of Sediment Oxygen Demand and Nutrient Fluxes in Eckie's Pond, MS," Mississippi Water Resources Conference, April 5-6, Jackson, MS.
90. Burke, Roger, Robert Mckinley, Mel Parsons, Karen McNeal, and James Martin. 2016. "Sediment Pore Water Ammonium and Phosphate Concentrations in Choctawhatchee Bay as Determined by the Diffusive Equilibration in Thin Films (Det) Technique," 10th National Monitoring Conference, Tampa, Florida, May 2 - 6, 2016
91. Borah, Deva K., James L. Martin, and G. Padmanabhan. 2016. "TMDL Model Selections: Simple Analytical to Complex Hydrodynamic & Water Quality Models," Virginia Water Conference 2016, March 13-15, 2016, Richmond, VA

PRESENTATIONS: WORKSHOPS AND LECTURES:

1. **Martin, J.L.** "Reservoir processes: Considerations in modeling reservoir processes," Presented at the Hydrologic Engineering Center training course on Water Quality Modeling of Rivers and Reservoirs, 25 February-March 1, 1985, Davis, CA.
2. **Martin, J.L.** "An overview of recent developments in water quality modeling from the EWQOS program," Presented at the US Army Engineers Pacific Ocean Division's EWQOS briefing, December 16-20, 1985, Honolulu, HI.
3. **Martin, J.L.** "An overview of water quality modeling capabilities at the Waterways Experiment Station," presented at the January 27, 1986 meeting of the Chesapeake Bay Program's Water Quality Modeling Subgroup, Baltimore, MD.
4. Dortch, M.S., **J.L. Martin**, M. Zimmerman, and D. Hamlin. "Water quality modeling of regulated streams," Presented at the 28-30 October, 1986, USACE Workshop on Reservoir Releases, Atlanta, GA.
5. **Martin, J.L.**, M.S. Dortch, J. Wlosinski and M. Zimmerman. "Reservoir Water Quality Modeling," Presented at the March 30-April 3, 1987 USAE Workshop on Reservoir Water Quality Modeling, Denver, CO.
6. **Martin, J.L.**, R.B. Ambrose, T. Wool, W. Lung, S. McCutcheon, Selected lectures presented at the U.S. EPA Workshop on "Estuarine Waste Load Allocation," September 11-13, 1990, Athens, GA.
7. McCutcheon, S.C., **J.L. Martin** and E.Z. Hosseinipour. "Modeling of Contaminated Sediment Movement," Presented at the Contaminated Sediment Seminar Series on Remedial Approaches for Sites with Contaminated Sediments, June 18-19, 1991, Atlanta Georgia, and June 20, Philadelphia, PA.
8. **Martin, J.L.**, R.B. Ambrose, and T. Wool. Selected Topics on Water Quality Modeling presented at the U.S. EPA Workshop "Introduction to Water Quality Modeling" April 8-12, 1991, Athens, GA.
9. **Martin, J.L.** and R.B. Ambrose. "Water Quality Modeling," Presented to the Institute for Meteorology and Water, May 13-23, 1991, Warsaw, Poland.
10. **Martin, J.L.**, R.B. Ambrose, J. Connolly and T. Wool. Selected topics on water quality modeling presented at the U.S. EPA Workshop "Advanced Water Quality Modeling with the Water Analysis Simulation Program", July 29-August 2, 1991, Boulder, CO.
11. **Martin, J.L.**, and T. Wool. "Water Quality Modeling with the Water Analysis Simulation Program", Presented at the AScl workshop, August 16-20, 1993, Portland, OR.
12. **Martin, J.L.** "Hydrodynamic Modeling," Presented at the U.S. EPA Great Lakes Program Office's Mass Balance and Risk Assessment Workshop," November 14-17, 1994, Ann Arbor, MI.

13. **Martin, J.L.** "Contaminant Modeling," Presented at the U.S. EPA Great Lakes Program Office's Mass Balance and Risk Assessment Workshop," November 14-17, 1994, Ann Arbor, MI.
14. **Martin, J.L.**, and T. Wool. "Water Quality Modeling with the Water Analysis Simulation Program", Presented to the New York Department of Water Control, January 22-25, 1994, Valhalla, NY.
15. **Martin, J.L.**, and T. Wool. Selected topics on water quality modeling presented at the AScl workshop "Water Quality Modeling with the Water Analysis Simulation Program", January 22-25, 1996, Kissimmee, FL.
16. **Martin, J.L.**, and T. Wool. Selected topics on water quality modeling presented at the AScl workshop "Linked Watershed Waterbody Model", January 23-26, 1996, Kissimmee, FL.
17. **Martin, J.L.**, and T. Wool. Selected topics on water quality modeling presented at the AScl workshop "Water Quality Modeling with the Water Analysis Simulation Program", September 23-27, 1996, Athens, GA.
18. **Martin, J.L.**, and T. Wool. "Water Quality Modeling with the Water Analysis Simulation Program", Presented to the Alberta Department of Environmental Protection, March 22-25, 1997, Edmonton, Alberta.
19. **Martin, J.L.**, and T. Wool. Selected topics on water quality modeling presented at the AScl workshop "Water Quality Modeling with the Water Analysis Simulation Program", October 27-30, 1997, Athens, GA.
20. **Martin, J.L.**, and T. Wool. Selected topics on water quality modeling presented at the AScl workshop "Water Quality Modeling with the Water Analysis Simulation Program", March 1-5, 1997, Washington, D.C.
21. **Martin, J.L.** and T. Wool. Selected topics on water quality modeling presented at the AScl workshop "Water Quality Modeling with the Water Analysis Simulation Program", October 7-9, 1998, Athens, GA.
22. **Martin, J.L.** "Watershed Hydrology and Runoff Processes," Presented at the Short Course on Water Quality Modeling and TMDL Development, University of Georgia, January 11-15, 1999, Athens, GA.
23. **Martin, J.L.** and C. Hesterlee. "A Primer on Waste Load Allocation and TMDL Modeling", Presented to the Mississippi Department of Environmental Quality, January 25-28, 1999, Jackson, MS.
24. **Martin, J.L.** and T. Wool. "Short Course 2: Water Quality Modeling and TMDL Development, the WASP Model," Presented at the Short Course on Water Quality Modeling and TMDL Development, University of Georgia, May 11-15, 1999, Athens, GA.
25. **J.L. Martin**, "Overview of Selected Applications of CE-QUAL-W2", Presented at the CE-QUAL-W2 Workshop, August 20, 1999, Portland, OR
26. **J.L. Martin**, "Application of CE-QUAL-W2 to J. Percy Priest Reservoir", Presented at the CE-QUAL-W2 Workshop, August 21-24, 2000, Portland, OR

27. **Martin, J.L.** and A. Wool. Selected topics on water quality modeling presented at the EPA Region 4 workshop "TMDLs and Water Quality Modeling with the Water Analysis Simulation Program", June 18-22, 2001, Atlanta, GA.
28. **Martin, J.L.** and A. Vaidya. Selected topics on TMDL Development and Waste Load Allocations presented to the Indiana Department of Environmental Management, October 30, 2001, Indianapolis, IN.
29. **Martin, J.L.** 2002. Presentation on "Empirical Methods to Evaluate Stability," and invited panelist, Sediment Stability Workshop, sponsored by the U.S. EPA, USACE, and U.S. Navy, January 22-24, 2002, New Orleans, LA.
30. **Martin, J.L.** Invited presentation on modeling needs at workshop "Science to Support Nutrient-Management Decisions Related to Hypoxia in the Northern Gulf of Mexico and Water Quality in the Mississippi River Basin," October 16-18, 2002, St. Louis, MO.
31. **Martin, J.L.** Workshop on "Water Quality Modeling," Presented to the National Environment and Planning Agency, Kingston, Jamaica, August 9-13, 2004.
32. **Martin, J.L.** "Water Quality Modeling: Current Trends Current Issues," Invited presentation at the U.S. EPA's Office of Research and Development, Ecosystem Research Division, Athens, GA , September 15, 2004.
33. **Martin, J.L.** Workshop on "Water Quality and Eutrophication Modeling," Presented to the St. Johns Water Management District, July 12-13, 2005.
34. **Martin, J.L.** and Andy Stoddard. "WASP Water Quality Modeling," Presented to the Florida Department of Environmental Protection, June 3-4, 2008, Tallahassee, FL
35. **Martin, J.L.** and Noor Baharim Hashim "TMDLs and Waste Load Allocations Strategies in the U.S.", Presented to the Malaysia Department of Environment, State Office of Johor, Johor, Malaysia, 15 July, 2008
36. **Martin, J.L.** and Noor Baharim Hashim TMDLs and Waste Load Allocations Strategies in the U.S.", Presented to the Malaysia Department of the Environment, State Office of Senlangor, Kuala Lumpur, Malaysia, 17 July, 2008
37. **Martin, J.L.** and Noor Baharim Hashim "Water Quality Modeling in the U.S. : History and Current Practices," Presented to the National Hydraulic Research Institute of Malaysia (NAHRIM), Kuala Lumpur, Malaysia, 18 July 2008
38. **James L. Martin** and Ali Erturk. 2010. "Modeling with HEC-RAS," July 13-17, 2009, IGEM Akademy, İstanbul, Turkey (see flyer in Appendix, course was canceled)
39. **James L. Martin**, Jairo N. Díaz and John J. Ramirez , Mississippi State University; Carlos A. González and Luis A. Camacho, National University of Colombia. 2010. "The IV International Engineering Seminar, Universidad Nacional de Colombia, Environmental Issues in Developing Countries, "July 6th – 30th, 2010.
40. **James L. Martin.** Short Talk: Applied water Quality Modeling, Dean Alumni, University Teknologi Malaysia (UTM), Johor, Malaysia, 5 July 2011.

41. **James L. Martin.** Applied water Quality Modeling, Langkawi Malaysia, 12-14 July 2011.
42. **James L. Martin.** Selected invited topics on water quality modeling, Presented at the U.S. EPA Workshop on the Water Analysis Simulation Program, August 6-10, 2012, Atlanta Georgia
43. **James L. Martin.** Selected invited topics on water quality modeling, Presented at the U.S. EPA Workshop on the Water Analysis Simulation Program, July 15-19, 2013, Atlanta Georgia
44. James L. Martin. Research Needs, presented to National Academy of Sciences, National Academy of Engineering, National Research Council, Advisory Group for The Gulf Research Program. November, 2013, Long Beach, MS.
45. G. Padmanabhan, **James L. Martin**, Andrew Parker, Deva K. Borah, and Yusuf Mohamoud. 2014. Short Course: "Modeling for Watershed Management and TMDL Development," World Environmental and Water Resources Congress. Portland, Oregon. June 1, 2014
46. **James L. Martin.** 2014. Invited presenter at U.S. Environmental Protection Agency Workshop, "The Water Analysis Simulation Program,' August 4-8, 2014, USEPA Region 4, Atlanta, GA
47. G. Padmanabhan, James L. Martin, Andrew Parker, Deva K. Borah, and Yusuf Mohamoud. 2015. Short Course: "Modeling for Watershed Management and TMDL Development," World Environmental and Water Resources Congress. Austin, Texas. May 16, 2015
48. James L. Martin. 2015. Invited presenter at U.S. Environmental Protection Agency Workshop, "The Water Analysis Simulation Program,' July 27-31, USEPA Region 4, Atlanta, GA
49. G. Padmanabhan, James L. Martin, Andrew Parker, Deva K. Borah, and Yusuf Mohamoud. 2015. Short Course: "Modeling for Watershed Management and TMDL Development (Part 1 & 2)," EWRI Watershed Management Symposium 2015, Reston, VA
50. James L. Martin and Vladimir Alarcon. 2016. Short Course: "Modeling water quality management: watershed scale and in-stream water quality modeling", Escuela de Ingenieria en Obras Civiles (EIOC), and Centro de Energia y Desarrollo Sustentable (CEDS) at Universidad Diego Portales (UDP), Santiago, Chile. June 5-9, 2016.
51. James L. Martin. 2017. Invited presenter at U.S. Environmental Protection Agency Workshop, "The Water Analysis Simulation Program,' July 17-21, USEPA Region 4, Atlanta, GA

COURSES TAUGHT

Number Title

CE 3523/3503: Water Resources Engineering: Hydraulics of closed conduits; groundwater hydraulics; open channel flow; reservoir and storage analysis; hydraulic structures and machinery.

CE 2803: Environmental Engineering Issues: An overview of the scientific, social and legal issues impacting environmental management and protection in the United States.

CE 3803: Environmental and Water Resources Engineering I: An introduction to the analysis and designing of systems for hydraulic and hydrologic management, water supply, and wastewater reclamation

CE 3813: Environmental and Water Resources Engineering II: Pressurized flow in pipe networks. Analysis and design of water distribution, stormwater collection and sanitary sewer systems.

CE 4523/6523: Open Channel Hydraulics: Continuity, energy and momentum principles in open channel flow; flow resistance; uniform and non-uniform flow; channel controls and transitions; unsteady flow routing.

CE 4533/6533: Computations in Water Resources: Review of relevant numerical analysis; numerical methods for kinematic wave, St. Venant, Boussinesq and depth-averaged equations; simulation of one- and two-dimensional free-surface flows.

CE 4990/6990: Numerical Methods in Civil Engineering; A survey of numerical methods for civil engineering practice, with applications in MATLAB and Visual Basic.

CE 8573: Hydro-environmental Analysis: Environmental engineering aspects of physical/chemical/ biological processes impacting conventional and toxic materials in surface waters. Characteristics of rivers/streams, lakes and estuaries related to environmental quality

CE 8923: Surface Water Quality Modeling: Water quality modeling of conventional pollutants in surface waters and their impacts (pathogens, temperature, dissolved oxygen, nutrients, and aquatic plants in relation to issues such as health impacts, hypoxia, nuisance and harmful algal blooms). Discussion of the present state-of-the-art of modeling and a review of recent trends.

CE 8933: Water Quality Modeling II: Water quality model of toxic materials. Modeling of the fate and transport of toxic materials in surface waters including pH and acidification, legacy persistent organic pollutants, metals, mercury, oil spills and emerging pollutants.

CE 7000: Problems: Modeling River Systems Using HEC-RAS

CE 7000: Problems: Visual Basic Applications in Civil Engineering

CE 7000: Problems: Water Quality Modeling Approaches to Contaminants

CE 8990: Problems: Numerical Methods in Water Resources Engineering

PROFESSIONAL CONSULTING (2001-PRESENT)

1. Hart Crowser, Seattle, Washington. Provided expert review of documents related to the Thea Foss Waterway superfund site (November 2001-January 2002).
2. Law Environmental, Atlanta, Georgia: Provided expert review of modeling studies on the Dugdemona River, Louisiana (January-March 2002).
3. Southeast Clean Water Network, Tallahassee, FL: Provided expert review, deposition and court testimony related to modeling studies used in development of a discharge permit to the Lower St. Johns River, FL. (January through February 2002).
4. HydroQual, Inc. Developed modifications of the one-dimensional hydrodynamic model CE-QUAL-RIV1 (February through March 2002).
5. GBMc & Associates, Bryant, AR, Provided technical review of water quality modeling studies.(February-March 2006).
6. PBS&J, Provided technical review of WASP model application to Joes Creek, FL (Jan-Mar 2007)
7. PBS&J, Provided technical review and data collection recommendations for the Winter Haven Chain of Lakes, FL (Jan-March 2007)
8. City of Calgary, Alberta, provided expert review of Bow River modeling studies (Jan-March 2007)
9. Southern California Coastal Water Research Project, modeling of Loma Alta Slough (June-December 2011)
10. Eutrophication TMDL study in the Santa Margarita River, Camp Pendleton, SPAWAR SYSTEMS CENTER PACIFIC. U/S. Navy (April 2012-December 2015)
11. Revision of the USEPA Rates and Kinetics Manual, CADMUS engineering, January-May 2016.
12. Review of "Using a Computer Water Quality Model to Derive Numeric Nutrient Criteria, Upper and Middle Yellowstone River," for USEPA through Tetra Tech (Expert Review, September-December 2016)
13. Eutrophication study and loads to Chesapeake Bay from Lower Susquehanna River Modeling (Peer Review, for Chesapeake Research Consortium; April 2016-Present)