

ALAN D. STEINMAN

ADDRESS:

Annis Water Resources Institute
Grand Valley State University
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EDUCATION:

Post-doc	1987-92	Oak Ridge National Laboratory	Ecosystem Ecology
Ph.D.	1987	Oregon State University	Botany/Aquatic Ecology
M.S.	1983	University of Rhode Island	Botany
B.S.	1979	University of Vermont (cum laude)	Botany

EMPLOYMENT HISTORY

- A. Director, Annis Water Resources Institute, Grand Valley State University, Muskegon, MI: August, 2001-present.
- Supervise 70-person Institute devoted to water resources research, geospatial information technology, and education/outreach
 - Teach graduate level courses
 - Principal investigator for research projects dealing with eutrophication, ecosystem restoration, primary productivity, and water resources policy
- B. Director, Lake Okeechobee Department, South Florida Water Management District (SFWMD), West Palm Beach, FL: September, 1999 – August, 2001.
- Supervise 50-person program devoted to ecosystem-level research, modeling, regulation, and the planning, construction, and implementation of public works projects dealing with the restoration of Lake Okeechobee and its watersheds; manage and evaluate staff; develop and oversee a \$20 million annual budget; provide technical guidance for the research program; manage external contracts; and conduct research on nutrient cycling and primary productivity
 - Adjunct Professor, Department of Biology, Florida Atlantic University, 1994-present
- C. Director, Okeechobee Systems Research Division, South Florida Water Management District (SFWMD), West Palm Beach, FL: September 1996-99.
- Supervise 25-person division devoted to ecosystem-level research and modeling, dealing with the restoration of Lake Okeechobee and its watershed, and the estuaries that connect to the lake; manage and evaluate staff; develop and oversee a \$3.5 million annual budget; provide technical guidance for the research program; manage external contracts; and conduct research on nutrient cycling and primary productivity
- D. Supervising Professional Environmental Scientist, SFWMD, West Palm Beach, FL: November 1993-Sept. 1996.
- Manage ecosystem research program on Lake Okeechobee and associated estuaries; conduct research on aquatic and agro-ecosystems; provide guidance to limnological and estuarine projects; manage and evaluate 9 scientists and technicians; serve as contract manager for limnological and estuarine research projects

- E. Senior Scientist, Science Applications International Corporation (SAIC), San Diego, CA: October 1992-October 1993.
- Adjunct Professor, Department of Biology, San Diego State University

COURSES TAUGHT:

Introductory Botany; Plant Physiology; Stream Ecology; Emerging Issues in Water Resources

ACADEMIC AWARDS AND HONORS:

- **Massapequa (NY) High School Hall of Fame**, 2009
- **Outstanding Reviewer Award**, Journal of Environmental Quality (JEQ), 2007
- **Environmental Excellence Award**, Muskegon Area Environmental Coordinating Council, 2005
- **Public Health Partnership Award**, Michigan Association for Local Public Health, 2004.
- **Certified Senior Ecologist**, Ecological Society of America, 2001.
- **Joan Hodges Queneau Palladium Medal** (as part of the Restudy Team) for restoration of the Everglades, National Audubon Society, 2000.
- **U.S. Army Corps of Engineers 1999 Outstanding Planning Achievement Award**: in recognition of the Restudy team's contributions to advancing the state of the art in the practice of water resources planning
- **Research Award for Foreign Specialists**: To present research on long-term ecosystem research as guest of the National Institute of Agro-Environmental Sciences (NIAES), Tsukuba, Japan, 3/97.
- **Invited Research Scientist**: To conduct research on aquatic bryophytes in the Kuparuk River at the Toolik Lake, Alaska LTER site, 7/93.
- **Sigma Xi Graduate Student Travel Award**, OSU: 1987.
- **Sigma Xi**: Oregon State University. 1984
- **Best Student Paper**: Northeast Algal Symposium. Woods Hole, MA. 1983
- **Phi Beta Kappa**: University of Vermont. 1979.
- **Lambort Award**. Top student in the study of the Hebrew language. Univ. of Vermont. 1976

MANAGEMENT COURSES/TRAINING:

- Situational Leadership, Capturing Brand You, Forging Breakthroughs, Building Community, Self Management, Innovation, High Impact Hiring, Partnering for Results, Reframing Change, and Managing Change
- What Matters Most: A Time Management Seminar
- Ethics, Sunshine, and Public Records
- Leadership Performance Training
- 360-Degree Feedback
- Emergency Operations Center Team Training
- Supplier Diversity Training
- Interpersonal and Communication Skills: A Seminar for the Technical Professional
- Effective Customer Service Leadership Training
- Key to Behavioral Interviewing and Candidate Selection
- Improving Managerial Skills of the New Manager
- Key to Performance Appraisal
- Key to Coaching and Counseling
- Diversity Awareness

PUBLICATIONS:

A. Peer-Reviewed Journals: (Total = 85; Senior Author = 39)

Steinman_CV_September2009

- Steinman, A.D.**, J.R. Nicholas, P. Seelbach, J. Allan, and F. Ruswick. In Press. The role of science in developing policy for the use of groundwater in the state of Michigan. *Water Policy*.
- Chu, X, and A.D. Steinman. 2009. Event and Continuous Hydrologic Modeling with HEC-HMS. *ASCE's Journal of Irrigation and Drainage Engineering* 135: 119-124.
- Steinman, A.D.**, X. Chu, and M. Ogdahl. 2009. Spatial and temporal variability of internal and external phosphorus loads in an urbanizing watershed. *Aquatic Ecology* 43: 1-18.
- Cymbola, J., M. Ogdahl, and **A.D. Steinman**. 2008. Phytoplankton response to light and internal phosphorus loading from sediment. *Freshwater Biology* 53: 2530-2542.
- Biddanda, B., **Steinman, A.D.**, Nemeth, L., Rediske, R., Hong, Y., and S. Kendall. 2008. Nutrient bioassays of plankton biomass and metabolism in an urbanized drowned river-mouth lake (Mona Lake, Michigan) in the Great Lakes basin. *Journal of Freshwater Ecology* 23: 41-53.
- Steinman, A.D.**, M. Ogdahl, R. Rediske, C.R. Ruetz III, B.A. Biddanda, and L. Nemeth. 2008. Current status and trends in Muskegon Lake, Michigan. *Journal of Great Lakes Research* 34: 169-188.
- Steinman, A.D.** and M. Ogdahl. 2008. Ecological effects following an alum treatment in Spring Lake, Michigan. *Journal of Environmental Quality* 37: 22-29.
- Steinman, A.D.**, B. Biddanda, X. Chu, K. Thompson, and R. Rediske. 2007. Environmental analysis and conceptual model of groundwater in Mecosta County, Michigan. *Environmental Monitoring and Assessment* 134: 177-189.
- Swain, H., Bohlen, P.J., Campbell, K.L. Lollis, L.O., and **A.D. Steinman**. 2007. Integrated ecological and economic analysis of ranch management systems: An example from south central Florida. *Rangeland Ecology and Management* 60: 1-11.
- Pietro, K.C., M.J. Chimney, and **A.D. Steinman**. 2006. Phosphorus uptake by the *Ceratophyllum*/periphyton complex in a south Florida freshwater marsh. *Ecological Engineering* 27: 290-300.
- Steinman, A.D.**, L. Nemeth, E. Nemeth, and R. Rediske. 2006. Factors influencing internal phosphorus loading in a west-Michigan, drowned river mouth lake. *Journal of the North American Benthological Society* 25: 304-312.
- Steinman, A.D.**, R. Rediske, X. Chu, R. Denning, L. Nemeth, D. Uzarski, B. Biddanda, and M. Luttenton. 2006. An environmental assessment of an impacted, urbanized watershed: the Mona Lake Watershed, Michigan. *Archiv für Hydrobiologie* 166: 117-144.
- Hong, Y., **A. Steinman**, B. Biddanda, R. Rediske, and G. Fahnenstiel. 2006. Occurrence of the toxin-producing cyanobacterium *Cylindrospermopsis raciborskii* in Mona and Muskegon Lakes, Michigan. *Journal of Great Lakes Research* 32: 645-652.
- Steinman, A.D.** and M. Ogdahl. 2006. Environmental conditions (of freshwater sustainability). *Water Resources Impact* 8: 17-18.
- Steinman, A.D.**, R. Rediske, and K.R. Reddy. 2004. The importance of internal phosphorus loading to Spring Lake, Michigan. *Journal of Environmental Quality*. 33: 2040-2048.
- Steinman, A.D.**, K.E. Havens, and M. Luttenton. 2004. Sustainability of surface and subsurface water resources: case studies from Florida and Michigan. *Water Resources Update* 127: 100-107.
- Kranz, R., S. Gasteyer, T. Heintz, R. Shafer, and **A.D. Steinman**. 2004. Conceptual foundations for the sustainable water resources roundtable. *Water Resources Update* 127: 11-19.
- Uzarski, D.G., C.A. Stricker, T.M. Burton, D.K. King, and **A.D. Steinman**. 2004. The importance of hyporheic sediment respiration in several mid-order Michigan streams: comparison between methods in estimates of lotic metabolism. *Hydrobiologia* 517: 47-57.
- Steinman, A.D.**, Conklin, J., Bohlen, P.J., and D.G. Uzarski. 2003. Influence of cattle grazing and land use on macroinvertebrates in freshwater wetlands. *Wetlands* 23: 877-889.
- Steinman, A.D.**, K.E. Havens, and L. Hornung. 2002. The managed recession of Lake Okeechobee, Florida: integrating science and natural resource management. *Conservation Ecology* 6(2): 17. [online] URL: <http://www.consecol.org/vol6/iss2/art17>.

- Baron, J.S., N.L. Poff, P.L. Angermeier, C.N. Dahm, P.H. Gleick, N.G. Hairston, Jr., R.B. Jackson, C.A. Johnston, B.G. Richter, and **A.D. Steinman**. 2002. Meeting ecological and societal needs for freshwater. *Ecological Applications* 12: 1447-1460.
- Grimshaw, H.J., K. Havens, B. Sharfstein, **A. Steinman**, D. Anson, T. East, R.P. Maki, A. Rodusky, and K-R. Jin. 2002. The effects of shading on morphometric and meristic characteristics of Wild Celery, *Vallisneria americana* Michx., transplants from Lake Okeechobee, Florida. *Archiv für Hydrobiologie* 155: 65-81.
- Vadebonceour, Y. and **A.D. Steinman**. 2002. Periphyton function in lake ecosystems. *TheScientificWorldJOURNAL* 2: 1449-1468.
- Steinman, A.D.**, K.E. Havens, A.J. Rodusky, B. Sharfstein, R.T. James, and M.C. Harwell. 2002. The influence of environmental variables and a managed water recession on the growth of charophytes in a large, subtropical lake. *Aquatic Botany* 72: 297-313.
- Carrick, H.J. and **A.D. Steinman**. 2001. Variation in periphyton biomass and species composition in Lake Okeechobee, Florida (USA). *Archiv für Hydrobiologie*. 152: 411-438.
- Havens, K.E., J.R. Beaver, T.L. East, A.J. Rodusky, B. Sharfstein, A. St. Amand, and **A.D. Steinman**. 2001. Nutrient effects on producers and consumers in the littoral plankton and periphyton of a subtropical lake. *Archiv für Hydrobiologie* 152: 177-201.
- Rodusky, A.J., **Steinman, A.D.**, East, T.L., Sharfstein, B., and R.H. Meeker. 2001. Periphyton nutrient limitation and other potential growth-controlling factors in Lake Okeechobee, USA. *Hydrobiologia* 448: 27-39.
- Havens, K.E., **Steinman, A.D.**, and S-J. Hwang. 2001. Phosphorus uptake by plankton and periphyton in relation to irradiance and phosphate availability in a subtropical lake (Lake Okeechobee, Florida, USA). *Archiv für Hydrobiologie*. 151: 177-201.
- Havens, K.E., K.R. Jin, A.J. Rodusky, B. Sharfstein, M.A. Brady, T.L. East, N. Iricanin, R.T. James, M.C. Harwell, and **A.D. Steinman**. 2001. Hurricane effects on a shallow lake ecosystem and its response to a controlled manipulation of water level. *TheScientificWorldJOURNAL* 1: 44-70.
- Sharfstein, B. and **A.D. Steinman**. 2001. Growth and survival of Florida Apple Snail (*Pomacea paludosa*) fed 3 naturally occurring macrophyte assemblages. *Journal of the North American Benthological Society* 20: 84-95
- Havens, K.E., Hauxwell, J., Tyler, A.C., Thomas, S., McGlathery, K.J., Cebrian, J., Valiela, I., **Steinman, A.D.**, and S.-J. Hwang. 2001. Complex interactions between autotrophs in shallow marine and freshwater ecosystems: implications for community responses to nutrient stress. *Environmental Pollution* 113:95-107.
- Havens, K.E., **Steinman, A.D.**, and B. Fry. 2001. Spatial variation in food web structure and function in a large, shallow subtropical lake (Lake Okeechobee, Florida, USA). *Verh. Internat. Verein. Limnol.* 27: 3470-3475.
- Steinman, A.D.** and B.H. Rosen. 2000. Lotic-lentic linkages associated with Lake Okeechobee, Florida. *Journal of the North American Benthological Society* 19: 733-741.
- Havens, K.E., East, T.L., Hwang, S.-J., Rodusky, A.J., Sharfstein, B., and **Steinman, A.D.** 1999. Algal responses to experimental nutrient addition in the littoral community of a subtropical lake. *Freshwater Biology* 42: 329-344.
- Havens, K.E., **Steinman, A.D.**, Carrick, H.J., Louda, J.W., Winfree, N.M., and Baker, E.W. 1999. Comparative analysis of lake periphyton communities using high performance liquid chromatography (HPLC) and light microscope counts. *Aquatic Sciences* 61: 307-322.
- Fry, B., Mumford, P.L., Tam, F., Fox, D.D., Warren, G.L., Havens, K.E., and **Steinman, A.D.** 1999. Trophic position and individual feeding histories of fish from Lake Okeechobee, Florida. *Canadian Journal of Fisheries and Aquatic Sciences* 56: 590-600.
- Stream Bryophyte Group (18 authors including **Steinman, A.D.**). 1999. Roles of bryophytes in stream ecosystems. *Journal of the North American Benthological Society* 18: 151-184.

- Kraemer, G.P., Chamberlain, R.H., Doering, P.H., **Steinman, A.D.** and Hanisak, M.D. 1999. Physiological responses of *Vallisneria americana* transplants along a salinity gradient in the Caloosahatchee Estuary (SW Florida). *Estuaries* 22: 138-148.
- Doering, P.H., Chamberlain, R.H., Donohue, K.M., and **Steinman, A.D.** 1999. Effect of salinity on the growth of *Vallisneria americana* Michx. from the Caloosahatchee Estuary, Florida. *Florida Scientist* 62: 89-105,
- Hwang, S-J., Havens, K.E., and **Steinman, A.D.** 1998. Phosphorus kinetics of planktonic and benthic assemblages in a shallow subtropical lake. *Freshwater Biology* 40: 729-745.
- Davis, W.P. and **A.D. Steinman**. 1998. A lightweight, inexpensive benthic core sampler for use in shallow water. *Journal of Freshwater Ecology* 13: 475-479.
- Steinman, A.D.**, Havens, K.E., Louda, J.W., Winfree, N.M., and Baker, E.W. 1998. Characterization of the photoautotrophic communities in a large, shallow subtropical lake using HPLC-PDA based pigment analysis. *Canadian Journal of Fisheries and Aquatic Sciences* 55: 206-219.
- Marzolf, E.R., P.J. Mulholland, and A.D. Steinman. 1998. Reply: Improvements to the diurnal upstream-downstream dissolved oxygen change technique for determining whole-stream metabolism in small streams. *Canadian Journal of Fisheries and Aquatic Sciences* 55: 1786-1787.
- Steinman, A.D.**, Meeker, R.H., Rodusky, A.J., Davis, W.P., and S-J. Hwang. 1997. Ecological properties of charophytes in a large, subtropical lake. *Journal of the North American Benthological Society* 16: 781-793.
- Steinman, A.D.**, Meeker, R.H., Rodusky, A.J., Davis, W.P., and McIntire, C.D. 1997. Spatial and temporal distribution of periphyton biomass in a large, subtropical lake. *Archiv für Hydrobiologie* 139: 29-50.
- Lamberti, G.A., and **A.D. Steinman**. 1997. A comparison of primary production in stream ecosystems. *Journal of the North American Benthological Society* 16: 95-104.
- Havens, K.E., East, T.L., Meeker, R.H., Davis, W.P., and **Steinman, A.D.** 1996. Phytoplankton and periphyton responses to in situ experimental nutrient enrichment in a shallow subtropical lake. *Journal of Plankton Research* 18: 551-566.
- Steinman, A.D.**, P.J. Mulholland, and J.J. Beauchamp. 1995. Phosphorus cycling and biomass accrual in stream periphyton communities. *Journal of the North American Benthological Society* 14: 371-381.
- Lamberti, G.A., Gregory, S.V., Ashkenas, L.R., **Steinman, A.D.**, and McIntire, C.D. 1995. Interactions of invertebrate grazers and epilithic algae in laboratory streams. *Hydrobiologia* 306: 179-188.
- Noel, J.M., R.H. Chamberlain, and **A.D. Steinman**. 1995. Environmental factors influencing suspended solids in the Loxahatchee estuary, Florida. *Water Resources Bulletin* 31: 21-32.
- Steinman, A.D.** 1994. The influence of phosphorus enrichment on lotic bryophytes. *Freshwater Biology* 31: 53-63.
- Mulholland, P.J., **Steinman, A.D.**, Marzolf, E.R., Hart, D.R., and DeAngelis, D.L. 1994. Effect of periphyton biomass on hydraulic characteristics and nutrient cycling in streams. *Oecologia* 98: 40-47.
- Marzolf, E.R., Mulholland, P.J., and **Steinman, A.D.** 1994. *In situ* metabolism on intact stream reaches: examples from Walker Branch and laboratory streams. *Canadian Journal of Fisheries and Aquatic Sciences* 51: 1591-1599.
- Steinman, A.D.** Research on disturbance in artificial streams. 1993. Pages 347-350 in G.A. Lamberti and A.D. Steinman (editors). *Research in artificial streams: applications, uses, and abuses*. *Journal of the North American Benthological Society* 12: 313-384.
- Steinman, A.D.** and H.L. Boston. 1993. The ecological role of aquatic bryophytes in a heterotrophic woodland stream. *Journal of the North American Benthological Society* 12: 17-26.
- Steinman, A.D.**, Mulholland, P.J., Palumbo, A.V., DeAngelis, D.L., and Flum, T. 1992. Lotic ecosystem response to a chlorine disturbance. *Ecological Applications* 2: 341-355.

- Steinman, A.D.** 1992. Does an increase in irradiance influence periphyton in a heavily-grazed woodland stream? *Oecologia*. 91: 163-170.
- Steinman, A.D.**, Mulholland, P.J., and Hill, W.R. 1992. Functional responses associated with growth form in stream algae. *Journal of the North American Benthological Society* 11: 229-243.
- Hill, W.R., Boston, H.L., and **Steinman, A.D.** 1992. Grazing and nutrients simultaneously limit primary productivity. *Canadian Journal of Fisheries and Aquatic Sciences* 49: 504-512.
- Steinman, A.D.**, Kirschtel, D., and Mulholland, P.J. 1991. Interactive effects of nutrient reduction and herbivory on biomass, taxonomic composition, and P uptake in lotic periphyton communities. *Canadian Journal of Fisheries and Aquatic Sciences* 48: 1951-1958.
- Steinman, A.D.**, Mulholland, P.J., Palumbo, A.V., Flum, T., and DeAngelis, D.L. 1991. Resilience of lotic ecosystems to a light-elimination disturbance. *Ecology* 72: 1299-1313.
- Mulholland, P.J., **Steinman, A.D.**, Palumbo, A.V., Flum, T., and DeAngelis, D.L. 1991. Stability characteristics of lotic ecosystems following a simulated scour event. *Journal of the North American Benthological Society* 10: 127-142.
- Mulholland, P.J., **Steinman, A.D.**, Palumbo, A.V., Kirschtel, D., and J.W. Elwood. 1991. Role of nutrient cycling and herbivory in regulating periphyton communities in laboratory streams. *Ecology* 72:966-982.
- Steinman, A.D.** 1991. Effects of herbivore size and hunger level on periphyton communities. *Journal of Phycology* 27: 54-59.
- DeAngelis, D.L., Post, W.M., Mulholland, P.J., **Steinman, A.D.**, and A.V. Palumbo. 1991. Nutrient limitation and the structure of food webs. *Ecology International* 19: 15-28.
- Mulholland, P.J., **Steinman, A.D.**, and J.W. Elwood. 1990. Measurement of phosphorus uptake length in streams: comparison of radiotracer injection and stable PO₄ additions. *Canadian Journal of Fisheries and Aquatic Sciences* 47: 2351-2357.
- Steinman, A.D.** and Parker, A.F. 1990. Influence of substrate conditioning on periphytic growth in a heterotrophic, woodland stream. *Journal of the North American Benthological Society* 9: 170-179.
- Steinman, A.D.**, Mulholland, P.J., Palumbo, A.V., Flum, T., Elwood, J.W., and D.L. DeAngelis. 1990. Resistance of lotic ecosystems to a light elimination disturbance: A laboratory stream study. *Oikos* 58: 80-90.
- Steinman, A.D.**, & C.D. McIntire. 1990. Recovery of lotic periphyton communities following disturbance. *Environmental Management* 14: 589-604.
- DeAngelis, D.L., Elwood, J.W., Mulholland, P.J., Palumbo, A.V., & **A.D. Steinman**. 1990. Biogeochemical cycling constraints on recovery of disturbed stream ecosystems. *Environmental Management* 14: 685-697.
- Lamberti, G.A., L.R. Ashkenas, S.V. Gregory, **A.D. Steinman** & C.D. McIntire. 1989. Productive capacity of periphyton as a determinant of plant-herbivore interactions in streams. *Ecology* 70: 1840-1856.
- Steinman, A.D.**, McIntire, C.D., Lamberti, G.A., & S.V. Gregory. 1989. Interactive effects of irradiance and grazing on algal assemblages in lotic systems. *Journal of Phycology* 25: 478-485.
- DeAngelis, D.L., Elwood, J.W., Mulholland, P.J., Palumbo, A.V., **Steinman, A.D.**, & Huston, M.A. 1989. Nutrient cycling and food web stability. *Annual Review of Ecology and Systematics*. 20: 71-95.
- Steinman, A.D.**, C.D. McIntire, & R.R. Lowry. 1988. Effects of irradiance and age on chemical constituents of algal assemblages in laboratory streams. *Archiv für Hydrobiologie* 114: 45-61.
- Steinman, A.D.** & G.A. Lamberti. 1988. Lotic algal communities in the Mt. St. Helens region, six years following the eruption. *Journal of Phycology* 24: 482-489.
- Steinman, A.D.** & T. Ladewski. 1987. Quantitative shape analysis of *Eunotia pectinalis* (Bacillariophyceae) and its application to seasonal distribution patterns. *Phycologia* 26: 467-477.

- Steinman, A.D.** & C.D. McIntire. 1987. Effects of irradiance on the community structure and biomass of algal assemblages in laboratory streams. *Canadian Journal of Fisheries and Aquatic Sciences* 44: 1640-1648.
- Steinman, A.D.**, C.D. McIntire, S.V. Gregory, G.A. Lamberti, & L. Ashkenas. 1987. Effects of herbivore type and density on taxonomic structure and physiognomy of algal assemblages in laboratory streams. *Journal of the North American Benthological Society* 6: 175-188.
- Steinman, A.D.**, C.D. McIntire, & R.R. Lowry. 1987. Effects of herbivore type and density on chemical composition of algal assemblages in laboratory streams. *Journal of the North American Benthological Society* 6: 189-197.
- Lamberti, G.A., Ashkenas, L.R., Gregory, S.V., & **Steinman, A.D.** 1987. Effects of three herbivores on periphyton communities in laboratory streams. *Journal of the North American Benthological Society* 6: 92-104.
- Steinman, A.D.** & C.D. McIntire. 1986. Effects of current velocity and light energy on the structure of periphyton assemblages in laboratory streams. *Journal of Phycology* 22: 352-361.
- Sheath, R.G., Burkholder, J.M., Hambrook, J.H., Hogeland, A.M., Hoy, E., Kane, M.E., Morison, M.O., **Steinman, A.D.**, & K.L. Van Alstyne. 1986. Characteristics of softwater streams in R.I. III. Distribution of macrophyte vegetation in a small drainage basin. *Hydrobiologia* 140: 183-191.
- Sheath, R.G., Burkholder, J.M., Morison, M.O., **Steinman, A.D.**, & Van Alstyne, K.L. 1986. Effect of tree canopy removal by gypsy moth larvae on the macroalgal community of a Rhode Island headwater stream. *Journal of Phycology* 22: 567-570.
- Steinman, A.D.** & R.G. Sheath. 1984. Morphological variability of *Eunotia pectinalis* (Bacillariophyceae) in a softwater Rhode Island stream and in culture. *Journal of Phycology* 20: 266-276.
- Sheath, R.G. & **A.D. Steinman**. 1982. A checklist of freshwater algae of the Northwest Territories, Canada. *Canadian Journal of Botany* 60: 1964-1997.

B. Peer-Reviewed Book Chapters: (Total = 16; Senior Author = 9)

- Steinman, A.D.** In Press. Environment. Pages XXX-XXX. In: *Leadership in Nonprofit Organizations: A Reference Handbook*, K. Agard (editor). Sage Publ., New York.
- Steinman, A.D.**, M. Ogdahl, and M. Luttenton. 2009. An analysis of internal phosphorus loading in White Lake, Michigan. Pages: 311-324. In: *Lake Pollution Research Progress*, F.R. Miranda and L.M. Bernard (editors). Nova Science Publ., New York.
- Chu, X. and **A.D. Steinman**. 2008. Continuous hydrologic modeling improved by intensive event data, Pages 1-11. In: *Proceedings of the World Environmental and Water Resources Congress 2008 Ahupua'a*, R.W. Bakcock, Jr. and R. Walton (editors). American Society of Civil Engineers.
- Stevenson, R.J., M.J. Wiley, S.H. Gage, V.L. Loughheed, C.M. Riseng, P. Bonnell, T.M. Burton, R.A. Hough, D.W. Hyndman, J.K. Koches, D.T. Long, B.C. Pijanowski, J. Qi, **A.D. Steinman**, and D.G. Uzarski. 2008. Watershed Science: Essential, Complex, Multidisciplinary and Collaborative. Pages 231-245. In: *Wetland and Water Resource Modeling and Assessment*, W. Ji (editor). CRC Press, Boca Raton, FL.
- Steinman, A.D.**, G.A. Lamberti, P. Leavitt. 2006. Biomass and pigments of benthic algae. Pages 357-379. In: *Methods in Stream Ecology*, R. Hauer and G. Lamberti (editors). Academic Press, NY.
- Steinman, A.D.** and P. J. Mulholland. 2006. Phosphorus limitation, uptake, and turnover in stream algae. Pages 187-212. In: *Methods in Stream Ecology*, R. Hauer and G. Lamberti (editors). Academic Press, NY.
- Steinman, A.D.** and R. Denning. 2005. The role of spatial heterogeneity in the management of freshwater resources. Pages 367-387 in: Lovett, G.M., Jones, C.G., M.G. Turner, and K.C. Weathers (editors). *Ecosystem Function in Heterogeneous Landscapes*. Springer, New York.
- Steinman, A.D.**, K.E. Havens, H.J. Carrick, and R. VanZee. 2002. The past, present, and future

- hydrology and ecology of Lake Okeechobee and its watersheds. Pages 19-37 in: J. Porter and K. Porter (editors). The Everglades, Florida Bay, and Coral Reefs of the Florida Keys. An Ecosystem Handbook. CRC Press, Boca Raton, FL.
- Steinman, A.D.**, K.E., Havens, N.G. Aumen, R.T. James, K.-R. Jin, J. Zhang, and B. Rosen. 1999. Phosphorus in Lake Okeechobee: sources, sinks, and strategies. Pages 527-544 in: K.R. Reddy, G.A. O'Connor, and C.L. Schelske (editors). Phosphorus Biogeochemistry of Subtropical Ecosystems: Florida as a case example. CRC/Lewis Publ., New York.
- Winfree, N.M., Louda, J.W., Baker, E.W., **Steinman, A.D.**, and Havens, K.E. 1997. Application of chlorophyll and carotenoid pigments for the chemotaxonomic assessment of seston, periphyton, and cyanobacterial mats of Lake Okeechobee, Florida. Pages 77-91 in: R.P. Eganhouse (editor). Molecular Markers in Environmental Geochemistry. ACS Symp. Ser. 671, American Chemical Society, Wash., D.C.
- Steinman, A.D.** 1996. Effects of grazers on freshwater benthic algae. Pages 341-373 in: R.J. Stevenson, M.L. Bothwell, and R.L. Lowe (editors). Algal Ecology, Academic Press.
- McIntire, C.D., S.V. Gregory, **A.D. Steinman**, and G.A. Lamberti. 1996. Modeling benthic algal communities: an example from stream ecology. Pages 669-704 in: R.J. Stevenson, M.L. Bothwell, and R.L. Lowe (editors). Algal Ecology, Academic Press.
- Steinman, A.D.** and P.J. Mulholland. 1996. Phosphorus limitation, uptake, and turnover in stream algae. Pages 161-189 in: F. R. Hauer and G.A. Lamberti (editors). Stream Ecology: Field and Laboratory Exercises, Academic Press.
- Steinman, A.D.** and G.A. Lamberti. 1996. Biomass and pigments of benthic algae. Pages 295-313 in: F. R. Hauer and G.A. Lamberti (editors). Stream Ecology: Field and Laboratory Exercises, Academic Press.
- Aumen, N.G., **Steinman, A.D.**, and K.E. Havens. 1995. Impacts of non-point source runoff from agricultural operations on Lake Okeechobee, Florida in: Impact of Animal Waste on the Land-Water Interface, Lewis Publ.
- Havens, K.E. and **A.D. Steinman**. 1994. Influence of soil amendments on biotic systems: aquatic systems. Pages 121-151 in: J.E. Rechcigl (editor). Influence of Soil Amendments on Biotic Systems, Lewis Publishers.
- Lamberti, G.A., Gregory, S.V., Ashkenas, L.R., Wildman, R.C., and **Steinman, A.D.** 1989. Influence of channel geomorphology on retention of dissolved and particulate matter in a Cascade Mountain stream. In: D. Abell (ed.) California Riparian Systems. USDA Forest Service Gen. Tech. Rep. PSW-110. pp. 33-40.

Peer-Reviewed Edited Volumes and Symposia: (Total = 3; Senior Author = 2)

- Steinman, A.D.** (ad hoc editor). 2010. 25th Anniversary Issue of the Journal of the North American Benthological Society.
- Steinman, A.D.** (Editor) 1998. Role of algae in the management of freshwater ecosystems. J. Phycol. 34: 725-765.
- Lamberti, G.A. and **A.D. Steinman** (Editors). 1993. Research in artificial streams: applications, uses, and abuses. J. No. Amer. Benthol. Soc. 12: 313-384.

Book Reviews/Published Commentaries:

- Steinman, A.D.** 2005. Lakes Handbook. J. No. Am. Benthol. Soc. 24:441-442 (book review).
- Steinman, A.D.** and M. Ogdahl. 2004. An innovative funding mechanism for the Muskegon Lake AOC. Journal of Great Lakes Research 30: 341-343.
- Steinman, A.D.** 1998. Role of algae in the management of freshwater ecosystems (Minireview introduction). J. Phycol. 34: 725.
- Steinman, A.D.** 1996. Algae and Elemental Cycling in Wetlands. J. No. Am. Benthol. Soc. 15: 138-140

(book review).

Steinman, A.D. 1989. A Biology of the Algae. J. No. Am. Benthol. Soc. 8: 198-199 (book review).

GRANTS (select):

Restoring Habitat in Great Lakes Areas of Concern with Implementation in Muskegon Lake, Michigan. NOAA. Total \$10,000,000 (AWRI: \$223,000; Steinman: \$154,437).

Effect of restoration on phosphorus dynamics in the Kissimmee River. PI. South Florida Water Management District. \$39,300 (2009).

Mona Lake Watershed Phase I Implementation Project. Co-PI. MDEQ. \$52,000 (2008-2009).

Flooded Muck Fields as a Source of Phosphorus to Mona Lake. PI. MDEQ. \$43,763 (2008-2010).

Algal Bioindicators in Muskegon Lake. PI. Alcoa Foundation. \$15,000. (2008-2009).

Algal responses to road run-off in an urbanized catchment. MI Space Grant. \$5,000 (2008).

A Study of Surface Run-off from US 31/Seaway on Little Black Creek, Muskegon County, MI. PI. US Department of Transportation. \$348,000 (2007-2009).

Alternative stormwater management practices that improve the quality and ecosystem function of water resources in Spring Lake Village and Township. PI. Michigan Sea Grant. \$220,000 (2007-09).

Groundwater sustainability workshop. PI. \$10,000. GLFT and Joyce Foundation (2007).

Valuation of green infrastructure ecosystem services. PI. \$65,000. Kellogg Foundation (2006-2007).

Continued renovations to a research and education facility. PI. \$400,000. US Department of Health and Urban Development. (2005-2009).

A hands-on scientific investigation at the Annis Water Resources Institute. PI. \$250,000. U.S. Department of Education (2004-2007).

Acquisition of a research facility, training and education space for the Annis Water Resources Institute. PI. \$250,000. US Department of Health and Urban Development (2004-2007).

Using Algal Bioindicators to Assess the Status of Muskegon Lake: Integrating Impacts of the Muskegon River Watershed. PI. \$25,000. Fremont Area Community Foundation (2006-2007)

Assessment of cyanobacteria and associated toxins in west Michigan lakes. Co-PI. \$58,551. MDEQ (2006-2007)

A Watershed Management Plan for Mona Lake, MI. Co-PI. MDEQ. \$167,000 (2004-05).

Nutrient budget for White Lake, MI. Co-PI. MDEQ. \$31,000 (2004-05).

Assessment of internal phosphorus loading in Spring Lake, MI. PI. Spring Lake – lake board. \$39,000 (2004).

Assessment of internal phosphorus loading in Spring Lake, MI. PI. Spring Lake – lake board. \$25,000 (2003).

Environmental analysis of well water in Mecosta County: a comprehensive and integrated approach. Year 2. P.I. Ice Mountain Stewardship Fund. \$20,000 (2005)

Environmental analysis of well water in Mecosta County: a comprehensive and integrated approach. Year 1. P.I. Ice Mountain Stewardship Fund. \$20,000 (2004).

Enhancing the Muskegon River Initiative: fish recruitment at the interface of the Great Lakes and their watersheds. Co-PI. Great Lake Fishery Trust. Total award \$1,600,000 (2004-2007).

Watershed Assessment of Mona Lake Watershed. Co-PI. Mott Foundation. \$100,000 (2002-2004).

Influence of Cattle Grazing and Land Use on Freshwater Wetlands in Rangeland Ecosystems. Co-PI. USDA. \$277,211 (2000-03).

Lake Okeechobee Restoration Project. PI. State of Florida. \$10,000,000 (2000-2005).

Lake Okeechobee Restoration Project. PI. Surface Water Advisory Restoration Grants, State of Florida. \$28,500,000 (2000-04).

Agro-ecosystems indicators of sustainability as affected by cattle density in ranch management systems. Co-PI. USDA. \$214,549 (1997-1999).

Optimization of best management practices for beef cattle ranching in the Lake Okeechobee basin – Phase

1. Co-PI. US EPA (319 funds). \$150,000 (1997-99).
Biological monitoring for South Bay Land Outfall, Tijuana River, San Diego County. P.I. International Boundary and Water Commission \$204,358 (1992-93).
Spatial gradients in nutrient recycling and their effect on ecosystem stability. Co-P.I. 1991-1993. NSF \$1,250,000 (1990-93).
Nutrient cycling, ecosystem structure, and ecosystem stability. Co-P.I. NSF \$350,410 (1987-88).

DEVELOPMENT ACTIVITY:

AWRI Postdoctoral Fellowship. Donation by Dr. Bruce Cohan. \$110,000 (2009-2010).
Robert B. Annis Water Resources Institute Fellowship Program. R.B. Annis Foundation. \$750,000 (2009-2019).
William G. Jackson Muskegon Lake Fund. Donation by Dr. William Jackson. \$100,000 (2008).
Establishment of Muskegon Lake Research Fund Endowment. Multiple Donors; fund held at Community Foundation for Muskegon County. Current balance: \$200,000 (started 2003).

CONTRACTS MANAGED:

Phosphorus Research in a Constructed Wetland. U.S. Geological Survey. 1998-2000. \$160,000.
Aquatic Primary Production in the Kissimmee River-Floodplain System. University of Notre Dame. 1997-2000. \$40,000.
Optimization of Best Management Practices for Beef Cattle Ranching in the Lake Okeechobee Basin. Archbold Biological Station. 1997-1999. \$280,000.
Food Web Structure in Lake Okeechobee: Florida International University. 1996-1998. \$40,000.
Underwater Vegetation Monitoring in the Caloosahatchee Estuary: U.S. Army Corps of Engineers Waterways Experiment Station. 1995-1997. \$70,000.
System Response to a Salinity Gradient in the Caloosahatchee Estuary: Harbor Branch Oceanographic Institution. 1995-1997. \$335,000.
Phosphorus Uptake and Cycling by Benthic and Planktonic Autotrophs in Lake Okeechobee: Archbold Biological Station. 1995-1997. \$110,000.
Pigment Analysis of Benthic and Pelagic Algae: Florida Atlantic University. 1995-1996. \$65,000.
Lake Okeechobee Periphyton Cell Counts: San Francisco State University. 1995-1996. \$35,000.

INVITED TESTIMONY:

U.S. House of Representatives Field Hearing. Science Committee; Subcommittee on Environment, Technology, and Standards. Great Lakes restoration activities. Grand Rapids, MI. April, 2006. http://commdocs.house.gov/committees/science/hsy27093.000/hsy27093_0.HTM
MI Senate. Committee on Natural Resources and the Environment. Progress of Groundwater Advisory Committee. July, 2005.
U.S. House of Representatives. Subcommittee on Water Resources and Environment. Great Lakes restoration activities. May, 2004. <http://www.house.gov/transportation/water/05-20-04/steinman.pdf>
MI Senate. Committee on Natural Resources and the Environment. Progress of Groundwater Advisory Committee. May, 2004.
MI Senate. Committee on Natural Resources and the Environment. Pending groundwater legislation. March, 2003.
Lee County (FL) Circuit Court. Expert witness on emergency order releasing water from Lake Okeechobee. May, 2000.

INVITED SEMINARS/PRESENTATIONS (last 10 years; Total = 98):

Greentown Conference, Grand Rapids, MI 7/09

Michigan State University (Michigan Water Fellow), East Lansing, MI 2/09
 Kiwanis Club, Grand Rapids, MI 1/09
 MI Dept of Environmental Quality Office of Great Lakes/MI United Conservation Clubs, Muskegon, MI 10/08
 Christ Community Church, Spring Lake, MI 9/08
 Dirt Dauber Garden Club, Montague, MI 8/08
 Michigan State University, East Lansing, MI. 7/08
 Little Manistee Watershed Council, Irons, MI 7/08
 Muskegon County Planning Commission, Muskegon, MI 7/08
 Muskegon County Environmental Coordinating Council, Muskegon, MI 6/08
 Muskegon Rotary (Delegation from India), Muskegon, MI 5/08
 Lakeshore Progressive Women's Alliance, Spring Lake, MI 4/08
 University of Notre Dame, Dept of Biological Sciences, Notre Dame, IN 4/08
 University of Michigan, Dept of Civil and Envntl Engineering, Ann Arbor, MI 4/08
 West Michigan Regional Issues Council, Grand Rapids, MI 4/08
 Mid-Michigan Green Infrastructure Workshop, East Lansing, MI 3/08
 MI Sea Grant Regional Fishery Workshop, Grand Haven, MI 3/08
 Loyola University, Chicago, IL 1/08
 Kellogg Biological Station (keynote), Hickory Corners, MI, 12/07
 Central Michigan University, Biology Dept, Mt. Pleasant, MI. 11/07
 GVSU Grand Forum, Muskegon, MI, 9/07
 Pere Marquette Watershed Council (keynote), Baldwin, MI, 9/07
 Scientech Club, Indianapolis, IN, 8/08
 Grand Rapids Rotary, Grand Rapids, MI, 5/07
 League of Women Voters, Holland, MI, 4/07
 Dept of Natural Resources, MSU, 1/07
 Muskegon Leadership Council, Muskegon, 11/06
 MI Dept of Environmental Quality, Lansing, MI 8/06
 Vergennes Township, MI, 5/06
 Muskegon County, MI elected officials, 3/06
 City of Norton Shores, MI, 1/06
 Michigan Turfgrass Association, Grand Rapids, MI, 1/06
 NOAA, Great Lakes Environmental Research Lab, Ann Arbor, MI, 10/05
 Muskegon City Commissioners, Muskegon, MI, 6/05
 1st National Ecosystem Restoration Conference, Plenary Speaker, Orlando, FL, 12/04
 USS Pickaway Reunion, Grand Rapids, MI, 10/04
 National Association of Conservation Districts: urban, community, and coastal resources committee,
 Muskegon, MI, 9/04.
 Institute of Chemistry and Biology of the Marine Environment, Oldenburg Univ., Oldenburg, Germany,
 5/04
 MI Lake & Stream Association, Boyne, MI, 4/04
 US-EPA Region 5, Chicago, IL, 2/04
 Dept of Ecology, Evolutionary Biology, and Behavior, Mich. State Univ., E. Lansing, MI, 11/03
 State of the Lake Conference, GVSU-USEPA, Muskegon, MI, 10/03
 West Michigan Leadership Academy, Grand Rapids, MI, 10/03
 Cary Conference, Inst. of Ecosystem Studies, Millbrook, NY, 5/03
 Grand Rapids Rotary, Grand Rapids, MI, 4/03
 Kellogg Biological Station (MSU), Hickory Corners, MI, 3/03
 Environmental Health Conference, Muskegon, MI, 2/03
 West MI Water Environment Assn, Muskegon, MI, 11/02

Dept of Biology, Grand Valley State Univ, Allendale, MI, 9/02
Leadership Academy, Muskegon, MI, 9/02
US-EPA Gulf Ecology Division, Gulf Breeze, FL, 7/02
Lake Macatawa Coordinating Council (keynote speaker), Holland, MI, 4/02.
Dept of Biology, Univ. of Texas-Arlington, Arlington, TX, 3/02.
American Fisheries Society, MI Chapter (keynote address), Muskegon, MI, 2/02.
NOAA, Great Lakes Environmental Research Lab, Ann Arbor, MI, 12/01.
Dept of Biological Sciences, University of Notre Dame, South Bend, IN, 11/01.
Institute of Limnology, University of Uppsala, Uppsala, Sweden 10/01
National Science Foundation, Division of Environmental Biology, Balston, VA, 6/01.
Water Resource Institute, Grand Valley State Univ., Grand Rapids, MI 4/01.
School of Natural Resources, University of Vermont, Burlington, VT 4/01.
Dept of Plant Biology, Ohio University, Athens, OH 3/01.
Dept of Environmental Sciences, George Mason University, Fairfax, VA, 2/01.
Sea Grant, University of Rhode Island, Kingston, RI, 1/01
Indian River Community College, Ft. Pierce, FL, 1/01.
Ecosystem Restoration Workshop, Univ. of Florida, W. Palm Beach, FL, 12/00
AWRA, Florida Chapter, Okeechobee, FL, 8/00.
Center for Natural Resources, Univ. of Florida, FL, 4/00.
Institute of Ecosystem Science, Millbrook, NY, 01/00.
USDA, National Research Initiative Cooperative Grants Program, Washington, DC, 9/99.
US-EPA, Nutrient Criteria for Streams and Rivers, Washington, DC, 12/98.
Submerged Lands Management Conference, Palm Coast, FL, 10/98.
In special symposium: "Lotic-lentic interactions". No. American Benthological Society annual meeting,
Charlottetown, PEI 6/98.

CONTRIBUTED SEMINARS (last 10 years; Total = 32):

State of Lake Michigan meeting, Traverse City, MI. 10/07
North American Benthological Society annual meeting, Columbia, SC. 6/07
North American Benthological Society annual meeting, Anchorage, AK. 6/06
State of the Lake Conference, Green Bay, WI. 11/05
North American Benthological Society annual meeting, New Orleans, LA. 5/05
Economicology 7.0, Grand Rapids, MI 4/05
North American Benthological Society annual meeting, Vancouver, BC. 6/04
State of the Lake Conference, Muskegon, MI. 10/03
International Association of Great Lakes Research, Chicago, IL. 6/03
North American Benthological Society annual meeting, Pittsburgh, PA. 5/02
Greater Everglades Ecosystem Restoration Conference, Naples, FL. 12/00
International Botanical Congress, St. Louis, MO. 8/99.
Northeast Algal Symposium, Plymouth, MA. 4/99.
Southeast Phycological Colloquium, Ft. Pierce, FL. 11/98.

PROFESSIONAL SOCIETIES:

American Society of Limnology and Oceanography
North American Benthological Society
Ecological Society of America
American Association for the Advancement of Science
International Association for Great Lakes Research
Water Environmental Federation

American Water Resources Association
Phi Beta Kappa

POSTDOCTORAL ADVISEES:

Kelly Wessell, AWRI: 2005-2006. Current position: Assistant Professor, Tompkins Cortland Community College, Cortland, NY
Soon-Jin Hwang, SFWMD: 1995-1997. Current position: Professor, Konkuk University, Korea

M.S. STUDENTS—Major Advisor:

Kelli Johnson (M.S.-major advisor; GVSU). 2007-present.
Matt Cooper (M.S.-major advisor; GVSU). 2007-present.
Jennifer Cymbola (M.S.-major advisor; GVSU). Defended, 2007. Current position: Adjunct Faculty, Grand Rapids Community College, Grand Rapids, MI

M.S. STUDENTS—Committee Member:

Bill Keiper (M.S.-committee member; GVSU). 2007-present.
Jennifer Jones (M.S.-committee member; GVSU). 2004-present.
Kathy Pietro (M.S.-committee member; Florida Atlantic University). 1995-1998.

PH.D. STUDENTS—Committee Member:

Lauren Kinsman (Ph.D.-committee member; MSU). 2007-present.
Janine Rueegg (Ph.D.-committee member; Univ. Notre Dame). 2007-present.
Michelle Evans-White (Ph.D.-committee member; Univ. Notre Dame). 2002-2006.

UNDERGRADUATE STUDENTS—Research Advisor:

Rachel Smith, Earlham College. 1991-1992.
Roland Hilgarth, St. Louis University. 1990.
Lisa Au, Cornell University. 1989.

PROFESSIONAL SERVICE AND ACTIVITIES

I. Professional Society Service

- Associate Editor: Journal of the North American Benthological Society (1992-1995; 2002-present).
- Editorial Board: TheScientificWorld Journal (2001-present).
- Associate Editor: Journal of Phycology (1997-2000).
- Editorial Board: Journal of Phycology (1996-2000).
- Chair: Program Committee Chair, Annual Meeting of North American Benthological Society, 2009 Grand Rapids, MI.
- Organizer: Plenary Organizer (Freshwater Conservation), North American Benthological Society, 2007 Columbia, SC.
- Member: Stormwater Management Exploratory Team, Water Environment Research Foundation (2006)
- Member: Award of Excellence Subcommittee, North American Benthological Society, 2003 – 2005 (Subcommittee Chair: 2004).
- Member: ASLO Journal Committee, American Society of Limnology and Oceanography, 1997-2001.
- Member: Executive Committee, North American Benthological Society, 1993-5.
- Member: Program Committee, Annual Meeting of North American Benthological Society, 1994 Orlando, FL.
- Treasurer: Sigma Xi chapter, South Florida Water Management District, 1994-1997.

- Member: Elections and Place Committee, North American Benthological Society, 1991/2.
- Co-organizer: Co-organizer of special session at 46th Annual Meeting of the North American Benthological Society: "Lotic-lentic linkages". Charlottetown, PEI, Canada, 5/98.
- Co-organizer: Co-organizer of special session at 40th Annual Meeting of the North American Benthological Society: "Research in Artificial Streams: Applications, Uses, and Abuses". Louisville, KY, 5/92.

II. Panels/Workshops/Committees/Organizer:

- Work Group Member: Lake Michigan Nearshore Monitoring Work Group. 2008
- Panel Member: USEPA STAR Grant Panel: Consequences of Global Change for Water Quality. 2008.
- Science Advisory Panel Member: Great Lakes Biological Station of Central Michigan University. 2008.
- Panel Member: MN Sea Grant Advisory Panel, Duluth, MN. 2008, 2004, 2002.
- Panel Member: USEPA Science Advisory Board on Report on the Environment. 2008, 2004.
- Committee Member: International Joint Commission, Upper Great Lakes Study Public Interest Advisory Group. 2007-2010.
- Steering Committee Member: Water Technology Cluster, Michigan Economic Development Corporation. 2008.
- Steering Committee Member: Water Pathogens in Michigan, Michigan Water Fellows, MSU. 2007-2008.
- Program Reviewer: M.S. Program in Natural Sciences, SUNY Plattsburgh, May, 2007.
- Michigan's Phosphorus Management Advisory Council: Appointed to provide technical expertise. 2006-2007.
- Michigan's Groundwater Conservation Advisory Council: Appointed by Senate majority leader to represent conservation interests advising MI Governor on groundwater resource issues; Chair – sustainability subcommittee. 2003-2006; 2006-2008.
- Co-organizer: Sustainable Water Resources Research Workshop, Ecology and In-stream Use Section, Ann Arbor, MI. 4/05.
- Great Lakes Regional Collaboration issue teams member: 1) sustainable development (water uses work group); 2) nonpoint source pollution (chair – nutrients work group). 2005.
- USEPA Workshop Invited Speaker. Overview of nutrients and autotrophs in freshwater. Chicago, IL. 2/04.
- Cary Conference Invited Speaker. Spatial heterogeneity and ecosystem function. Institute of Ecosystem Studies, Milbrook, NY. 5/03.
- Steering Committee Member: Great Lakes Fishery & Ecosystem Support Plan. U.S. Army Corps of Engineers, Lansing, MI. 2002-2003.
- Panel Member: US Geologic Survey/BRD Contaminants Program Review. Portland, OR. 2/02
- Opponent: Invited opponent to disputation defense of Maria Kahlert, University of Uppsala, Sweden. 10/01.
- Panel Member: National Science Foundation, Ecosystems Panel. 1998-2002.
- Panel Member: Grand Canyon Monitoring and Research Center, Park City, UT, 9/97.
- Emergency Operations Center Management Team: South Florida Water Management District, 1999-2001.
- Workshop Participant: Invited speaker and participant in U.S.E.P.A.-sponsored workshop: "Nutrient Criteria for Streams and Rivers, Washington, DC, 12/98.
- Authored addendum of nutrient criteria manual addressing aquatic macrophytes

- Invited Guest: Participant in joint U.S.-Russian study investigating the effects of UV-B radiation on aquatic primary production. Sponsored by the U.S. Dept of Energy and the Academy of Sciences of the Russian Republic, Moscow, Russia, 1/92.
- Workshop Participant: Invited speaker and participant in U.S.E.P.A.-sponsored workshop: "Recovery of Lotic Communities and Ecosystems Following Disturbance: Theory and Application", Duluth, MN, 10/88..

CURRENT CIVIC ACTIVITIES (Muskegon):

Goodwill Industries of West Michigan, Board of Directors: 2009-present.
 Mona Lake Watershed Council, Technical Committee. 2005-present.
 Muskegon Lake Watershed Partnership. 2002-present.
 West Michigan Artificial Reef Society, Board Advisor. 2002-present.
 Tall Ships Muskegon, Board of Directors. 2001-present.
 Muskegon Rotary, Member: 2001-present.
 West Michigan Strategic Alliance, Green Infrastructure Leadership Council. 2001-present
 Community Foundation for Muskegon County, Environmental Committee. 2001-present

PAST CIVIC ACTIVITIES (Muskegon):

Muskegon Rotary. 2001-present (Board of Directors: 2006-2009; Program Committee chair: 2004-05; Community Fund Committee Member: 2007-present).
 Hackley Hospital, Institutional Review Board. 2005-2008.
 United Way, Cabinet Member, 2006 Campaign for Muskegon County; Captain 2001-2002.
 Muskegon Red Cross, Co-chair Hero's Campaign. 2004.
 Land Conservancy for West Michigan, Board of Directors. 2002-2007.
 Muskegon Chamber of Commerce, Development Committee. 2002-2007.