

RICHARD NIGEL LYON ANDREWS

Department of Public Policy, Abernethy Hall, CB# 3435
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-3435 USA
Phone: (919) 619-4571 Fax (919) 962-5824
E-mail: pete.andrews@unc.edu
Web: <http://richardandrews.web.unc.edu/>

Education

A.B. Philosophy, Yale University, 1966.
M.R.P. Regional Planning, University of North Carolina at Chapel Hill, 1970.
Ph.D. Environmental Policy and Planning, University of North Carolina at Chapel Hill,
1972.

Positions

University of North Carolina at Chapel Hill. Professor Emeritus, 2015 to present; Professor,
Department of Public Policy, 2002-2015 (and prior Curriculum in Public Policy Analysis, 1981-
2002); and Curriculum for the Environment and Ecology, 2009-2015 (and previous Carolina
Environmental Program, 2002-09); and Department of Environmental Sciences and
Engineering, Gillings School of Global Public Health, 1981-2015; and Department of City and
Regional Planning, 1981-2015.

Administrative and elected appointments: Chair, Department of Public Policy, 2006-2011;
Chair of the UNC-Chapel Hill Faculty (elected), 1997-2000; Director, Environmental
Management and Policy Program, Department of Environmental Sciences and Engineering,
1990-94; Director, UNC Institute for Environmental Studies, 1981-91.

Concurrent Affiliations:

Center for Urban and Regional Studies
Institute for the Arts and Humanities
Institute for the Environment
Parr Center for Ethics

University of Michigan, Ann Arbor. Assistant Professor of Natural Resource Policy, School of
Natural Resources, 1972-75; and of Urban and Regional Planning, 1974-75; Associate Professor
of Natural Resource Policy and of Urban and Regional Planning, 1975-81; Acting Chair,
Regional Planning Curriculum, 1975-76; Chair, Resource Policy and Management Program,
1978-81.

Research Associate, University of North Carolina at Chapel Hill, 1972.

Budget Examiner, Water Resources Branch, U.S. Office of Management and Budget, 1970-72.

Natural Resource Planner Aid, New York State Department of Conservation, 1969.

Peace Corps Volunteer (Agriculture Extension, Nepal), 1966-68.

Areas of Specialization

Environmental policy institutions and instruments

Effectiveness of environmental laws, regulations, and public policy incentives

Pollution prevention and business initiatives for environmental management

State energy and climate change policy

U.S. and comparative environmental policy

History, institutions, and decision processes

Roles of science, values, public concerns, and policy analysis

Comparative environmental policy: North Carolina and other U.S. states, Europe, Asia

Honors

Order of the Long Leaf Pine (for public service to the people of North Carolina) (2015)

Thomas Willis Lambeth Distinguished Professorship in Public Policy (2004-09)

Most Outstanding Faculty Award, Public Policy Majors Union (2004)

University Distinguished Service Research Leave (2000-01)

Parr Fellow in Ethics, UNC Institute for the Arts and Humanities (2000)

Director's Award, UNC Learning Disabilities Services Program (1999)

Innovations Award, Council of State Governments (1998)

(shared award to Multi-State Working Group on Environmental Management Systems)

Honorary Member, Golden Key National Honor Society (elected 1997)

Fellow, National Academy of Public Administration (elected 1996)

Fellow, American Association for the Advancement of Science (elected 1992)

Fulbright Fellow and Guest Professor, Vienna University of Economics and Business

Administration (1990)

Sigma Xi (elected 1989)

Delta Omega Public Health Honorary Society (elected 1983)

Rockefeller Fellow in Environmental Affairs (1977-78)

Resources for the Future Dissertation Fellow (1971-72)

Mellon Fellow (1970-71)

NIH Environmental Health Fellow (1969-71)

Professional Associations

American Association for the Advancement of Science

Association for Public Policy Analysis and Management

National Academy of Public Administration

North Carolina Center for Public Policy Research

Society for the Policy Sciences

Professional Activities

Member, Committee on the Human Dimensions of Global Change, National Research Council, 2005-2011.

Member, Panel on Addressing the Challenges of Climate Change through the Behavioral and Social Sciences, National Research Council, 2009-2010.

Member, Annual Research Conference Program Committee, Association for Public Policy Analysis and Management, 2009.

Member, Panel on Environmental Decision Making, National Research Council, 2003-05.

Member, Annual Research Conference Program Committee, Association for Public Policy Analysis and Management, 2003.

Lecturer, 62nd Anniversary Forum of the Faculty of Commerce and Accountancy, Thammasat University, Bangkok, Thailand, November 24, 2000.

Chair, Panel on U.S. Registration Practices for ISO 14001 Environmental Management Systems, National Academy of Public Administration, 2000-01.

Member, Multi-State Working Group on Environmental Management Systems, 1997-2006.

Member, Committee on Science, Engineering, and Public Policy, American Association for the Advancement of Science, 1997-2003.

Member, Advisory Panel on Setting Priorities: New Directions for the Environmental Protection Agency, National Academy of Public Administration, 1994-95.

Chair, Advisory Committee on Rethinking Environmental Regulation, U. S. Congress Office of Technology Assessment, 1993-95.

Pew Conservation Scholars Program, nominator 1990, Advisory Committee member 1991-94.

Faculty Member, Salzburg Seminar on Negotiation of International Environmental Issues, Salzburg, Austria, June 3-15, 1990.

Member, Strategic Options Subcommittee, Relative Risk Reduction Strategies Committee, U.S. EPA Science Advisory Board, 1989-90.

Chair, Section on Societal Impacts of Science and Engineering, American Association for the Advancement of Science, 1989-90, 1996-97; Nominating Committee Member, 1988-89; Annual Meeting Program Committee, 1988-90; Member, Committee on Science, Engineering, and Public Policy (COSEPP), 1997-2003; Section Committee Member-at-Large, Section on Social, Economic, and Political Sciences, 1998-2001.

Member, Work Group on International Environmental Negotiation, American Academy of Arts and Sciences, 1986-87.

Member, Board on Environmental Studies and Toxicology, National Academy of Sciences, 1986-88; Chair, NAS Study Committee on Opportunities in Applied Environmental Research and Development, 1988-91.

Lecturer, First National Seminar on Management of the Environment in Cameroun. Yaounde, United Republic of Cameroun, November 1983.

Member, Editorial Advisory Board, *Environmental Impact Assessment Review*, 1980-96.

Trustee, The Institute of Ecology (Indianapolis, Indiana), 1977-82.

Visiting Scholar, Scholar-Diplomat Seminar Program, U.S. Department of State, 1981.

Expert witness on implementation of NEPA. U.S. Council on Environmental Quality, 1977.

Expert witness on performance of U.S. Council on Environmental Quality. U.S. Senate Committee on Interior and Insular Affairs, 1976.

State Service

Member, NC Legislative Commission on Global Climate Change, 2008-2010.

Member, Energy Supply and Renewables Subcommittee, NC Energy Policy Council, 2007.

Member, Emerging Energy Markets Working Group, Institute for Emerging Issues, North Carolina State University, 2007.

Member, Environmental Stewardship Advisory Committee, North Carolina Department of Environment and Natural Resources, 2002-2005.

Advisor and research partner, Division of Pollution Prevention and Environmental Assistance, North Carolina Department of Environment and Natural Resources, 1995-2003.

Member, North Carolina State Solid Waste Plan Advisory Committee, 1991.

Chair, Public Affairs and Policy Committee, North Carolina Academy of Sciences, 1987-89.

Member, Committee on Air Toxics, North Carolina Academy of Sciences, 1986.

Member, Natural Heritage Advisory Committee, North Carolina Department of Natural Resources and Community Development, 1983-87.

Member, Pollution Prevention Research Advisory Committee, North Carolina Board of Science and Technology, 1983-88.

Senior staff member, Governor's Commission on the Future of North Carolina (*The Future of North Carolina* or "NC 2000" report: chief staff member, Natural Resources Panel), 1982-84.

Consultation

Environmental Agency Abu Dhabi, United Arab Emirates, 2009-2010

Vienna University of Economics and Business Administration, 2002-03

U.S.-Asia Environmental Partnership, 2000-05

George Mason University, 2000

University of Twente, Centre for Clean Technology and Environmental Policy, 2000

Prague University of Economics, 1998-99

National Academy of Public Administration, 1994-95, 2000-01

U.S. Congress, Office of Technology Assessment, 1993-95

U.S. Agency for International Development, 1983, 1991-94

U.S. Environmental Protection Agency, 1979-82, 1989-90, 1991-93
European Institute, 1991-92
Carnegie Commission on Science, Technology and Government, 1991
U.S. General Accounting Office, 1989
U.S. National Science Foundation, 1983-85
U.S. Water Resource Council, 1979-80
U.S. Forest Service, 1979
U.S. Department of Health, Education and Welfare, 1974 and 1976
U.S. Army Corps of Engineers, 1972-73

Research Grants

U.S. Environmental Protection Agency (2012-13, 2013-14). Improving the Representation of Consumer Purchasing Behavior in MARKAL.

U. S. Environmental Protection Agency (2001-05). Environmental Management Systems: Do Formalized Management Systems Produce Superior Performance?

U. S.-Asia Environmental Partnership (2000-05). Environmental Policy in the Global Economy. (*with Kenan Institute of Private Enterprise and Kenan Institute Asia*).

U. S. Environmental Protection Agency (1997-2003). Effects of ISO 14001 Environmental Management Systems (*with John Villani and Deborah Amaral, Department of Public Policy*).

U. S. Environmental Protection Agency (1996-99). Effectiveness of Regulatory Incentives for Sediment Pollution Prevention (*with Seth Reice, Curriculum in Ecology*).

U. S. Environmental Protection Agency (1995-97). Policy Innovations for Permitting Innovative Technologies (*with John Villani, Curriculum in Public Policy Analysis*).

U. S. Information Agency (1992-96). Fulbright University Affiliation Program in Environmental Policy and Economics (among UNC and Sofia and Vienna Universities of Economics).

U. S. Agency for International Development (1991-95): Economic Approaches to Environmental Policy in Czechoslovakia.

U. S. Army Environmental Policy Institute (1992-94). Student Research in Environmental Policy.

North Carolina Department of Environment, Health, and Natural Resources (1992): Enterprise Funds for Solid Waste Management: Issues and Models for Local Governments.

Water and Sanitation for Health (WASH) Program, U.S. Agency for International Development (1992): Design of an Assessment Instrument for Wastewater and Solid Waste Management Projects.

German Ministry of Environment (1991): International Comparison of Environmental Standard-Setting Procedures (*subcontract with the Institut für Stadtforschung und Strukturpolitik GmbH, Berlin, for the U. S. case study*).

North Carolina Pollution Prevention Program (1987-88): Waste Reduction Options in Municipal Solid Waste Management.

National Association of Regional Councils (1987): Regional Approaches to Solid Waste Management.

UNC Physical Plant Division (1987): Options for Management of Power Plant Ash.

National Science Foundation (1985-87): Use of Scientific and Technological Information in Federal Policy Decisions.

North Carolina Governor's Waste Management Board (1984-85): Costs and Benefits to Local Government Due to Presence of a Hazardous Waste Management Facility, and Related Compensation Issues.

North Carolina Board of Science and Technology (1984-85): Local Governments and Hazardous Waste Management.

North Carolina Board of Science and Technology (1984-85): Application of Environmental Auditing Concepts to Pollution Prevention in North Carolina.

U.S. Environmental Protection Agency (1983-84): Environmental Auditing in North Carolina.

North Carolina Board of Science and Technology (1982-83): Siting Constraints on Hazardous Waste Facilities.

Lincoln Institute for Land Policy (1981-83): Hazardous Waste and Land Policy.

U.S. Department of Energy/Teknekron Research, Inc. (1979): Environmental Assessment for Energy and Wilderness Decisions.

U.S. Department of Agriculture (1979-80): Off-Road Vehicle Management on Public Lands.

National Science Foundation (1977-79): Value of Time in Environmental Decisions.

U.S. Army Corps of Engineers (1973): Impact Assessment in Water Resource Planning.

Rockefeller Foundation (1977-78): Formative Influences on American Environmental Policy.

National Science Foundation (1977-78): Unquantified Environmental Considerations in Decision Processes.

PUBLICATIONS

Books

Andrews, R. N. L. 2006. *Managing the Environment, Managing Ourselves: A History of American Environmental Policy* (2nd edition). New Haven, CT: Yale University Press. xvii + 515 pp.
Chapter 1 also reprinted in *Environment: An Interdisciplinary Anthology*, edited by Glenn Adelson, James Engell, Brent Ranalli, and K.P. Van Anglen (New Haven: Yale University Press, 2008, Chapter 21, pp. 715-727).

Andrews, R. N. L. 1999. *Managing the Environment, Managing Ourselves: A History of American Environmental Policy*. New Haven, CT: Yale University Press. xiii + 416 pp.

Clayton, P. H.; Glaze, W. H.; and R. N. L. Andrews (editors). 1990. *Environmental Change and Public Health: The Next Fifty Years*. Special Issue, *Environmental Impact Assessment Review*, vol. 10, no. 4.

Andrews, R. N. L., R. J. Burby and A. G. Turner. 1985. *Hazardous Materials in North Carolina: A Guide for Decision-makers in Local Government*. Chapel Hill, NC: Conservation Foundation of North Carolina (distributed by UNC Institute for Environmental Studies). 186 pp.

Andrews, R. N. L. (ed.). 1979. *Land in America: Commodity or Natural Resource?* Lexington, MA: Lexington Books, DC Heath and Co. 239 pp.

Andrews, R. N. L. 1976. *Environmental Policy and Administrative Change: Implementation of the National Environmental Policy Act*. Lexington, MA: Lexington Books, D.C. Heath and Co. 230 pp.

Journal Articles

Andrews, R. N. L. 2013. State Environmental Policy Innovations: North Carolina's Clean Smokestacks Act. *Environmental Law* 43(4):881-940.

Carley, S., and R. N. L. Andrews. 2012. Creating a Sustainable U.S. Electricity Sector: The Question of Scale. *Policy Sciences* 45:97-121.

Andrews, R. N. L. 2011. The EPA at 40: An Historical Perspective. *Duke Environmental Law and Policy Forum* 21:223-258.

Gallagher, D. R.; Andrews, R. N. L.; Chandrachai, Achara; and Kaewta Rohitratana. 2004. Environmental Management Systems in the U.S. and Thailand: A Case Comparison. *Greener Management International* 46:41-56.

Andrews, R. N. L. 2001. Politics, Economics, and Perceptions. *Conservation Biology* 15(6) :1485-87.

Eggers, D. M.; Villani, J.; and R. N. L. Andrews. 2000. Third-Party Information Providers and Innovative Environmental Technology Adoption. *American Behavioral Scientist* 44(2):266-77.

Darnall, N.; Gallagher, D. R.; Andrews, R. N. L.; and D. Amaral. 2000. Environmental Management Systems: Opportunities for Improved Environmental and Business Strategy? *Environmental Quality Management* 9(3):1-9.

- Andrews, R. N. L. 1998. Environmental Regulation and Business "Self-Regulation." *Policy Sciences* 31(3):177-97.
- Sauer, P.; Mensik, S.; and R. N. L. Andrews. 1996. Ekologicke a dalsi hodnoty studentu (Vysledky pilotazni studie provadene na univerzitach v sestech zemich) [Environmental and Other Values of Students - A Pilot Study]. *Acta Oeconomica Pragensis* 4(3):107-114.
- Sauer, P.; Dvorak, A.; Remtova, K.; Carmin, J.; Andrews, R. N. L.; and L. Paroha. 1996. Prechod domacnosti na cistsi zpusob vytapeni - pripadova studie Decin [Household Conversion to Cleaner Fuel - A Case Study of Decin]. *Acta Oeconomica Pragensis* 4(3):79-98.
- Sauer, P.; Dvorak, A.; Paroha, L.; Carmin, J.; and R. N. L. Andrews. 1996. Economic and Environmental Impacts of Household Conversion to Cleaner Fuel in the Czech Republic. *Prague Economic Papers* 5(2):147-160.
- Andrews, R. N. L. 1995. Reform or Reaction: EPA at a Crossroads. *Environmental Sciences & Technology* 29(11):505A-510A. Reprinted in *Today's Chemist at Work* 5(3):30-36 (1996).
- Paterson, C. J. and R. N. L. Andrews. 1995. Procedural and Substantive Fairness in Risk Decisions: Comparative Risk Assessment Procedures. *Policy Studies Journal* 23(1):85-95.
- Andrews, R. N. L.; Paroha, L.; Vozab, J.; and P. Sauer. 1994. Decentralized Environmental Management in the Formerly Communist States: A Case Study of Decin, Czech Republic. *Environmental Impact Assessment Review* 14(2):111-136.
- Andrews, R. N. L. 1993. Long-Range Planning in Environmental and Health Regulatory Agencies. *Ecology Law Quarterly* 20(3):515-582.
- Andrews, R. N. L. 1990. Environmental Change and Public Health: An Agenda for the Future. *Environmental Impact Assessment Review* 10(4):461-64.
- Andrews, R. N. L., and P. H. Clayton. 1990. Environmental Change and Public Health: An Overview. *Environmental Impact Assessment Review* 10(4):303-08.
- Andrews, R. N. L. 1987. Local Planners and Hazardous Materials. *Journal of the American Planning Association* 53(1):3-5.
- Smith, M. A.; Lynn, F. M.; and R. N. L. Andrews. 1986. Economic Impacts of Hazardous Waste Facilities. *Hazardous Waste and Hazardous Materials* 3(2):195-204.
- Andrews, R. N. L., and T. K. Pierson. 1985. Local Control or State Override: Experiences and Lessons to Date. *Policy Studies Journal* 14(1): 90-99.
- Andrews, R. N. L., 1985. The Road Not Taken. *Environmental Science and Technology* 29(1):3.
- Andrews, R. N. L., and T. K. Pierson. 1984. Hazardous Waste Facility Siting Processes: Experience from Seven States. *Hazardous Waste* 1(3):377-386.
- Andrews, R. N. L. 1982. Benefit-Cost Analysis and Environmental Decision Making: The Merits and Politics of Analytical Requirements. *The Environmental Professional* 4:281-285.

- Andrews, R. N. L. 1981. Environmental Planning in the Eighties. *Carolina Planning* 7(2):7-10.
- Andrews, R. N. L. 1981. Will Benefit-Cost Analysis Reform Regulation? *Environmental Science and Technology* 15(9):1016-1021.
- Andrews, R. N. L. 1980. Values Analysis in Environmental Policy. *Policy Studies Journal* 9(3):369-378. Reprinted in D. Mann (ed.), *Environmental Policy Formation: The Impact of Values, Ideology and Standards* (Lexington, MA: Lexington Books, DC Heath and Co., 1981).
- Andrews, R. N. L. 1980. Class Politics or Environmental Reform? Environmentalism and American Political Institutions. *Natural Resources Journal* 20(3):221-241.
- Andrews, R. N. L., and M. J. Waits. 1980. Theory and Methods of Environmental Values Research. *Interdisciplinary Science Reviews* 5(1):71-78.
- Andrews, R. N. L. 1979. Environment and Energy: Implications of Overloaded Agendas. *Natural Resources Journal* 19(3):487-503. Reprinted in F. Strom (ed.), *Land Use and Environment Law Review-1980* (New York: Clark Boardman Co., 1980).
- Andrews, R. N. L. 1979. Federal Environmental Policy: Issues for the '80s. *Carolina Planning* 5(1):16-21.
- Andrews, R. N. L. 1976. Agency Responses to NEPA: A Comparison and Implications. *Natural Resources Journal* 16(2):301-322. Reprinted in C. Kury (ed.), *Enclosing the Environment: NEPA's Transformation of Conservation into Environmentalism* (Albuquerque, NM: University of New Mexico School of Law, 1985), Twenty-fifth Anniversary Anthology of *Natural Resources Journal*.
- Andrews, R. N. L. 1976. NEPA in Practice: Environmental Policy or Administrative Reform? *Environmental Law Reporter* 6:50001-50009. Originally presented at the Library of Congress Workshop on Assessment of the National Environmental Policy Act, Washington, DC, December 1976. Also published in U.S. Congress, House Committee on Merchant Marine and Fisheries, Subcommittee on Fisheries and Wildlife Conservation and the Environment, *Workshop on the National Environmental Policy Act*. Committee Print, Serial 94-E, Washington, DC: U.S. Government Printing Office, February 1976.
- Andrews, R. N. L. 1974. Environment and Bureaucracy: Progress and Prognosis. *Journal of Environmental Education* 6(1):1-6.
- Andrews, R. N. L. 1974. Comments on "An Environmental Evaluation System for Water Resources Planning," by Dee et al. *Water Resources Research* 10(2):376-378.
- Andrews, R. N. L. 1973. A Philosophy of Environmental Impact Assessment. *Journal of Soil and Water Conservation* 28:197-203.
- Andrews, R. N. L. 1972. The Council on Environmental Quality: An Evaluation. *Journal of Soil and Water Conservation* 27:8-11.
- Andrews, R. N. L. 1971. Three Fronts of Federal Environmental Policy. *Journal of the American Institute of Planners* 37:258-266. Reprinted in Brian J. L. Berry and Frank E. Horton (eds.),

Urban Environmental Management: Planning for Pollution Control (Englewood Cliffs, NJ: Prentice-Hall, 1974).

Book Chapters

- Andrews, R. N. L. (2016, in preparation). Environmental Impact Assessment. Chapter __ in *Conceptual Innovations in Environmental Policy*, edited by James Meadowcroft and Daniel Fiorino. Cambridge, MA: MIT Press.
- Andrews, R. N. L. 2016. The Environmental Protection Agency. Chapter 7 in *Environmental Policy in the Twenty-first Century*, 9th edition, edited by Norman Vig and Michael Kraft. Washington, D.C.: Congressional Quarterly Press, pp. 215-238.
- Andrews, R. N. L. 2014. Environmental Policy Tools (1700s-present). Chapter 10 in *The CQ Guide to U.S. Environmental Policy*, edited by Edmund Russell and Sally K. Fairfax. Washington, DC: CQ Press, pp. 141-157.
- Andrews, R. N. L. 2012. A History of Environmental Leadership. Chapter 3 in *Environmental Leadership Reference Handbook*, vol. 1, edited by Deborah Gallagher. Thousand Oaks, CA: Sage Publications.
- Andrews, R. N. L. 2012. Environmental Politics and Policy in Historical Perspective. Chapter 2 in *Handbook of U.S. Environmental Policy*, edited by Michael E. Kraft and Sheldon Kamieniecki. NY: Oxford University Press.
- Gallagher, Deborah R.; Andrews, Richard N. L.; Chandrachai, Achara; and Kaewta Rohitratana. 2007. Environmental Management Systems in the U.S. and Thailand: A Case Comparison. Chapter 12 in *Strategic Sustainability: The State of the Art in Corporate Environmental Management Systems*, edited by Robert Sroufe and Joseph Sarkis. Sheffield, UK: Greenleaf Publishing, pp. 205-221
- Andrews, R. N. L.; Hutson, A.; and D. Edwards Jr. 2006. Environmental Management Under Pressure: How Do Mandates Affect Performance? Chapter 5 in *Leveraging the Private Sector: Management-Based Strategies for Improving Environmental Performance*, edited by Cary Coglianese and Jennifer Nash. Washington, DC: Resources for the Future Press, pp. 111-136.
- Andrews, R. N. L. 2005. Risk-Based Decision Making: Policy, Science, and Politics. Chapter 10 in *Environmental Policy in the Twenty-first Century*, 6th edition, edited by Norman Vig and Michael Kraft. Washington, D.C.: Congressional Quarterly Press, pp. 215-38.
- Andrews, R. N. L. 2005. Recovering the Environmental Legacy of FDR. Chapter 10 in *FDR and the Environment*, edited by Henry L. Henderson and David B. Woolner. New York: St. Martin's Press, pp. 221-43.
- Andrews, R. N. L. 2003. Risk-Based Decision Making. Chapter 10 in *Environmental Policy in the Twenty-first Century*, 5th edition, edited by Norman Vig and Michael Kraft. Washington, D.C.: Congressional Quarterly Press, pp. 223-48.

- Darnall, N.; Gallagher, D. R.; and R. N. L. Andrews. 2002. ISO 14001: Greening Management Systems. Chapter 12 in *Greener Manufacturing and Operations*, edited by Joseph Sarkis. Sheffield, England: Greenleaf Publishing, pp. 178-90.
- Andrews, R. N. L. et al. 2001. Environmental Management Systems: History, Theory, and Implementation Research. Chapter 2 in *Regulating from the Inside: Can Environmental Management Systems Achieve Policy Goals?*, edited by Cary Coglianese and Jennifer Nash. Washington, DC: Resources for the Future Press, pp. 31-60.
- Andrews, R. N. L., et al. 2001. Lessons from OECD Experience With Voluntary Approaches for Czech Environmental Policy. Chapter 1.2 in *Voluntary Agreements in Environmental Policy*, edited by Petr Sauer *et al.* Prague: University of Economics Prague, pp. 16-26. ISBN 80-245-0117-1.
- Andrews, R. N. L. 2000. Experience With Voluntary Approaches in Environmental Policy: the United States. Chapter 4.2 in *Dobrovolne Dohody V Politice Zivotniho Prostredi [Voluntary Agreements in Environmental Policy]*, edited by Petr Sauer *et al.* Prague: University of Economics Prague, pp. 144-71. ISBN 80-245-0116-3.
- Andrews, R. N. L. 1999. Risk-Based Decision Making. Chapter 10 in *Environmental Policy: New Directions for the 21st Century*, 4th edition, edited by Norman Vig and Michael Kraft. Washington, D.C.: Congressional Quarterly Press, pp. 210-231.
- Andrews, R. N. L. 1997. Martin Jänicke and the “Berlin School” of Environmental Policy Analysis: An American Perspective. In *Umweltpolitik und Staatsversagen: Perspektiven und Grenzen der Umweltpolitikanalyse [Environmental Policy and Governance Studies: Perspectives and Frontiers of Environmental Policy Analysis]*, edited by Lutz Mez and Helmut Weidner. Berlin: Edition Sigma, Rainer Bohn Verlag, pp. 35-40.
- Andrews, R. N. L., and F. M. Lynn. 1997. Siting of Hazardous Waste Facilities. In *Standard Handbook of Hazardous Waste Treatment and Disposal*, 2nd edition, edited by Harry M. Freeman. New York: McGraw Hill, pp. 3.3-3.16.
- Andrews, R. N. L. 1997. The Unfinished Business of National Environmental Policy. Chapter 6 in *Environmental Policy and NEPA: Past, Present, and Future*, edited by Ray Clark and Lawrence Canter. Delray Beach, FL: St. Lucie Press, pp. 85-97.
- Andrews, R. N. L. 1997. National Environmental Policies: The United States. Chapter 2 in *National Environmental Policies: A Comparative Study of Capacity Building*, edited by Martin. Jänicke and Helmut Weidner. Heidelberg and New York: Springer Verlag, pp. 25-43.
- Andrews, R. N. L. 1996. Risk-Based Decision Making. Chapter 10 in *Environmental Policy in the 1990s*, 3rd edition, edited by Norman Vig and Michael Kraft. Washington, DC: Congressional Quarterly Press.
- Paterson, C. J., and R. N. L. Andrews. 1995. Values and Comparative Risk Assessment. In *Handbook of Environmental Risk Decision Making: Values, Perceptions, and Ethics*, edited by C. R. Cothorn. Boca Raton, FL: CRC Press.

- Andrews, R. N. L. 1995. The Environmental Protection Agency. In *Conservation and Environmentalism: An Encyclopedia*, edited by Robert Paehlke. New York: Garland Publishing, pp. 256-57.
- Andrews, R. N. L. 1995. Benefit-Cost Analysis. In *Conservation and Environmentalism: An Encyclopedia*, edited by Robert Paehlke. New York: Garland Publishing, pp. 69-70.
- Andrews, R. N. L. 1993. Risk-Based Decision Making. Chapter 10 in *Environmental Policy in the 1990s*, 2nd edition, edited by Norman Vig and Michael Kraft. Washington, DC: Congressional Quarterly Press.
- Andrews, R. N. L. 1993. Environmental Policy in the Czech and Slovak Republic. Chapter 2 in *Environment and Democratic Transition: Policy and Politics in Central and Eastern Europe*, edited by Anna Vari and Pal Tamas. Boston: Kluwer Academic Publishers.
- Lynn, F. M.; McLaughlin, C.; and R. N. L. Andrews. 1990. Coping with Scientific and Technological Uncertainty: Federal Policy Analysis for Non-Routine Decisions. In *New Risks: Issues in Management*, edited by L. A. Cox Jr. and P. F. Ricci. New York: Plenum, pp. 515-28.
- Andrews, R. N. L. 1990. Risk Assessment: Regulation and Beyond. Chapter 8 in *Environmental Policy in the 1990s*, edited by Norman Vig and Michael Kraft. Washington, DC: Congressional Quarterly Press.
- Andrews, R. N. L., and P. J. Prete. 1988. Trends in Hazardous Waste Facility Siting and Permitting. In *Negotiating Hazardous Waste Facility Siting and Permitting Agreements*, edited by Gail Bingham and Timothy Mealey. Washington, DC: The Conservation Foundation.
- Andrews, R. N. L. 1988. Environmental Impact and Risk Assessment. Chapter 5 in *Environmental Impact Assessment: Theory and Practice*, edited by Peter Wathern. London: Unwin Hyman Ltd.
- Andrews, R. N. L., and F. M. Lynn. 1988. Siting Hazardous Waste Facilities. Section 3.1 in *Standard Handbook on Hazardous Waste Control Technology*, edited by Harry M. Freeman. New York: McGraw-Hill. 16 pp.
- Andrews, R. N. L. 1988. Siting Hazardous Waste Facilities: A Comparative State Analysis. Chapter 7 in *Dimensions of Hazardous Waste Politics and Policy*, edited by James Lester and Charles Davis. Westport, Conn.: Greenwood Press.
- Andrews, R. N. L., and A. G. Turner. 1987. Controlling Toxic Chemicals in the Environment. Chapter 2 in *Toxic Chemicals, Health and the Environment*, edited by Lester Lave and Arthur Upton. Baltimore: Johns Hopkins University Press.
- Andrews, R. N. L., and C. Ward. 1985. Arthritis and Public Policy. Chapter 17 in *Arthritis in Society: The Impact of Musculoskeletal Diseases*, edited by Nortin M. Hadler and D. B. Gillings (eds.). Kent, England: Butterworths International.
- Andrews, R. N. L. 1984. Deregulation: The Failure at EPA. Chapter 7 in *Environmental Policy in the 1980s*, edited by Norman Vig and Michael Kraft. Washington, DC: Congressional Quarterly Press.

- Andrews, R. N. L. 1984. Economics and Environmental Decisions, Past and Present. Chapter 2 in *Environmental Policy Under Reagan's Executive Order: The Role of Benefit-Cost Analysis*, edited by V. Kerry Smith. Chapel Hill: University of North Carolina Press.
- Andrews, R. N. L. 1982. Cost-Benefit Analysis as Regulatory Reform. Chapter 6 in *Cost-Benefit Analysis and Environmental Regulations: Politics, Ethics, and Methods*, edited by Daniel Swartzman, Richard Liroff, and Kenneth Croke. Washington, DC: The Conservation Foundation.
- Andrews, R. N. L. 1981. Values Analysis in Environmental Policy. Chapter 9 in *Environmental Policy Formation: The Impact of Values, Ideology and Standards*, edited by Dean Mann. Lexington, MA: Lexington Books.
- Andrews, R. N. L. 1979. Land in America: A Brief History. Chapter 3 in *Land in America: Commodity or Natural Resource?*, edited by Richard N. L. Andrews. Lexington, MA: Lexington Books.
- Andrews, R. N. L. 1978. Substantive Guidelines for Environmental Impact Assessment. In *Environmental Impact Analysis: Emerging Issues in Planning*, edited by Ravinder K. Jain and Bruce L. Hutchings. Urbana, IL: University of Illinois Press, pp. 37-42. Originally presented at the Conference on Environmental Impact Analysis, The University of Illinois at Champaign-Urbana, May 1977.
- Andrews, R. N. L. 1977. Elements and Methods of Impact Assessment. Chapter 9.3 in W. Marsh *et al.*, *Environmental Analysis for Land Use and Site Planning*. New York: McGraw-Hill.
- Andrews, R. N. L. 1977. Applications of Environmental Analysis. Chapter 7 in W. Marsh *et al.*, *Environmental Analysis for Land Use and Site Planning*. New York: McGraw-Hill.
- Andrews, R. N. L. 1975. Impact Statements and Impact Assessment. In M. Blissett (ed.), *Environmental Impact Assessment*. Austin, TX: Lyndon B. Johnson School of Public Affairs, University of Texas. Reprinted in *Management and Control of Growth*, Vol. 3, Washington, DC: The Urban Land Institute. Originally presented at the Engineering Foundation Conference on Preparing Environmental Impact Statements, Henniker, NH, July 1973.

Public Policy Reports

- Brewer, Garry, et al. 2005. *Decision Making for the Environment: Social and Behavioral Science Research Priorities*. Report of the Panel on Social and Behavioral Science Research Priorities for Environmental Decision Making, Committee on the Human Dimensions of Global Change, National Research Council. Washington, DC: National Academy Press (*Richard N. L. Andrews, co-author as panel member*).
- Andrews, R. N. L. 2005. The Environment in Business Decision Making. Chapter 4 in *Decision Making for the Environment: Social and Behavioral Science Research Priorities*, Report of the Panel on Social and Behavioral Science Research Priorities for Environmental Decision Making, Committee on the Human Dimensions of Global Change, National Research Council. Washington, DC: National Academy Press, pp. 52-68.

- National Academy of Public Administration. Panel on ISO 14001 Registration and Auditing Practices in the United States (R. N. L. Andrews, panel chair and co-author). 2001. *Third-Party Auditing of Environmental Management Systems: U.S. Registration Practices for ISO 14001*. Washington, DC. (with Jan Mazurek, staff director)
- U. S. Congress. Office of Technology Assessment. Panel on Rethinking Environmental Regulation. 1995. *Rethinking Environmental Regulation* (R. N. L. Andrews, advisory panel chair). Washington, DC.
- Andrews, R. N. L. 1992. *Long-Range Planning in Environmental, Health, and Safety Regulatory Agencies*. New York and Washington: Carnegie Commission on Science, Technology and Government.
- National Research Council. Board on Environmental Studies and Toxicology. Committee on Opportunities in Applied Environmental Research and Development (R. N. L. Andrews, chair). 1991. *Opportunities in Applied Environmental Research and Development*. Washington, DC.
- National Research Council. Board on Environmental Studies and Toxicology. Committee on Opportunities in Applied Environmental Research and Development (R. N. L. Andrews, chair). 1990. *Waste Reduction: Research Needs in Applied Social Science*. Washington, DC.
- Andrews, R. N. L. 1990. Reduction of Municipal Solid Wastes. In U.S. EPA Science Advisory Board, *Reducing Risk*. Report of the Strategic Options Subcommittee of the Relative Risk Reduction Strategies Committee. Washington, DC: U.S. Environmental Protection Agency. Report No. EPA-SAB-EC-90-021C.
- Prete, P. J.; Edelman, M. B.: and R. N. L. Andrews. 1988. *Solid Waste Reduction: Alternatives for North Carolina*. A report to the Pollution Prevention Program, North Carolina Department of Natural Resources and Community Development. Chapel Hill: UNC Institute for Environmental Studies. 92 pp. + 4 appendices.
- Prete, P. J.; Edelman, M. B.; Keating, T. J.; and R. N. L. Andrews. 1988. *Solid Waste Management: Exploring Regional Roles*. Special Report. Washington, DC: National Association of Regional Councils.
- Andrews, R. N. L.; Burby, R. J.; and A. G. Turner. 1985. *Local Governments and Hazardous Materials: A North Carolina Guide*. A report to the North Carolina Board of Science and Technology (jointly with UNC Center for Urban and Regional Studies).
- Andrews, R. N. L. 1984. *Environmental Issues Facing North Carolina*. White paper for the UNC Environmental Studies Council. Chapel Hill: UNC Environmental Studies Council, UNC General Administration, December 1984.
- Smith, M. A.; Lynn, F. M.; Andrews, R. N. L.; Olin, R. D.; and C. Maurer. 1985. *Costs and Benefits to Local Government Due to Presence of a Hazardous Waste Management Facility and Related Compensation Issues*. A report to the North Carolina Governor's Waste Management Board. Chapel Hill: UNC Institute for Environmental Studies, March 1985. 105 pp. plus appendices.
- Andrews, R. N. L., and T. K. Pierson. 1984. *Detailed Summary of Siting Criteria in Twelve States*. A report to the North Carolina Board of Science and Technology. Chapel Hill: UNC Institute for Environmental Studies, March 1984. 115 pp.

- Andrews, R. N. L. 1983. Summary: Effects of Environmental Regulation on Industrial Compliance Costs and Technological Innovation. In U.S. National Science Foundation, Division of Policy Research and Analysis, *Workshop on Effects of Environmental Regulation on Industrial Compliance Costs and Technological Innovation*. PRA Report 83-10, Washington, DC, April 1983.
- Andrews, R. N. L., and T. K. Pierson. 1983. *Hazardous Waste Facility Siting: A Comparison of State Approaches*. A report to the North Carolina Board of Science and Technology. Chapel Hill: UNC Institute for Environmental Studies, October 1983. 84 pp.
- Commission on the Future of North Carolina. 1983. Natural Resources (R. N. L. Andrews, senior staff member and principal drafter). Chapter 3 in *The Future of North Carolina: Goals and Recommendations for the Year 2000*. Raleigh, NC.
- Andrews, R. N. L. 1982. Natural Resource Management in North Carolina: Background, Issues and Possible Recommendations. Paper prepared at the request of the Natural Resources Panel, Governor's Commission on the Future of North Carolina, May 1982. 61 pp.
- Andrews, R. N. L. 1982. Possible Goals and Objectives for North Carolina Natural Resource Management. Paper prepared at the request of the Natural Resources Panel, Governor's Commission on the Future of North Carolina, April 1982.
- Andrews, R. N. L., and T. K. Pierson. 1982. Hazardous Waste Management in North Carolina's Future. Paper prepared at the request of the Governor's Commission on the Future of North Carolina, April 1982.
- Andrews, R. N. L., and B. G. Greenberg. 1982. Environmental Health in North Carolina's Future. Paper prepared at the request of the Governor's Commission on the Future of North Carolina, April 1982.
- Andrews, R. N. L., and T. K. Pierson. 1982. Research and Education Needs in North Carolina Hazardous Waste Management. Paper prepared for the North Carolina Governor's Waste Management Board, January 1982.
- Andrews, R. N. L. 1982. Water, Environmental Quality and Sensitive Environmental Systems. In Land Use Research Needs Committee, North Carolina Land Use Congress, *North Carolina Land Use Research Needs*. Raleigh, NC.
- Pierson, T. K., and R. N. L. Andrews. 1981. State of Knowledge of Hazardous Waste Sources and Disposition in North Carolina. Paper prepared for the UNC Environmental Studies Council. Chapel Hill, NC: UNC General Administration.

Research Reports

- Johnson, Evan; Yates, Andrew; Arunachalam, Sarav; and R. N. L. Andrews. 2014. Improving the Representation of Consumer Purchasing Behavior in MARKAL. Final Report for WA 2-05: Improving the Representation of Consumer Purchasing Behavior in MARKAL, Task 4 – Testing for Empirical Variation in Hurdle Rates. U.S. EPA Contract No. EP-D-12-044, "Emissions, Air

Quality, and Meteorological Modeling Support.” Chapel Hill: Institute for the Environment, University of North Carolina at Chapel Hill.

Johnson, Evan; Yates, Andrew; Arunachalam, Sarav; and R. N. L. Andrews. 2013. Improving the Representation of Consumer Purchasing Behavior in MARKAL. Final Report for Task WA 1-07, U.S. EPA Contract No. EP-D-12-044, Emissions, Air Quality, and Meteorological Modeling Support. Chapel Hill: Institute for the Environment, University of North Carolina at Chapel Hill.

Andrews, R. N. L. 2005. Environmental Management Systems: Do Formalized Management Systems Produce Superior Performance? Final Report to the U.S. Environmental Protection Agency on Grant Number R829440. Chapel Hill: Department of Public Policy, University of North Carolina at Chapel Hill.

Andrews, R. N. L. et al. 2003. Environmental Management Systems: Do They Improve Performance? Final Report of the National Database on Environmental Management Systems Pilot Project. Chapel Hill, NC: Department of Public Policy, UNC-Chapel Hill. With Deborah Amaral, Nicole Darnall, Deborah Rigling Gallagher, Daniel Edwards Jr., and Chiara D’Amore. Also on line at <http://ndems.cas.unc.edu/>

Andrews, R. N. L. 2001. Similarities and Differences Among Environmental Management Systems: An Empirical Comparison. Report to the Office of Water, U.S. Environmental Protection Agency, Washington, DC. Chapel Hill: Curriculum in Public Policy Analysis, University of North Carolina at Chapel Hill.

Andrews, R. N. L.; Villani, John; and Dolores Eggers. 2000. Policy Innovations for Permitting Environmental Technologies. Final report to U.S. Environmental Protection Agency on Grant Number X994863-95-0. Chapel Hill: Department of Environmental Sciences & Engineering, University of North Carolina at Chapel Hill.

Amaral, Deborah; Andrews, R. N. L.; Darnall, N.; Gallagher, D. R.; and S. T. Keiner. 2000. National Database on Environmental Management Systems: The Effects of ISO 14001 Environmental Management Systems on the Environmental and Economic Performance of Organizations. Second Public Report, May 2000. Chapel Hill, NC: University of North Carolina.

Andrews, R. N. L.; Darnall, N.; Gallagher, D. R.; and J. Villani. 1999. National Database on Environmental Management Systems: The Effects of ISO 14001 Environmental Management Systems on the Environmental and Economic Performance of Organizations. Project Summary I, March 27, 1999. Chapel Hill, NC: University of North Carolina.

Randall, F. M., and R. N. L. Andrews. 1994. Economic Considerations in Environmental Policy. Research report prepared for the Army Environmental Policy Institute. Champaign, IL: AEPI.

Andrews, R. N. L. 1993. Assessing Policy Instruments. Chapter 6 in R. Andrews *et al.*, Guidelines for Improving Wastewater and Solid Waste. Arlington, VA: Camp, Dresser & McKee/Water and Sanitation for Health Project, Technical Report No. 88.

Andrews, R. N. L.; Lord, W.; O’Toole, L.; and F. Requena, 1993. Guidelines for Improving Wastewater and Solid Waste. Arlington, VA: Camp, Dresser & McKee/Water and Sanitation for Health Project, Technical Report No. 88.

- Andrews, R. N. L., and C. J. Paterson. 1992. "Länderstudie USA." Chapter 4 in Jaedicke, W.; Kern, K.; and Wollmann, H., Internationaler Vergleich von Verfahren zur Festlegung von Umweltstandards. Report to the Umweltbundesamt, Federal Republic of Germany (Vorhaben 101 01 08). Berlin: Institut für Stadtforschung und Strukturpolitik GmbH, July 1992, pp. 152-252.
- Andrews, R. N. L. 1992. Environmental Policy-Making in the United States. In Towards a Transatlantic Environmental Policy. Washington, DC: The European Institute, pp. 98-138.
- Andrews, R. N. L. 1990. The Environment: Why Should Business Schools Care? (And How Should They Respond If They Do?). Discussion Paper No. 44, Interdisciplinary Institute for Urban and Regional Studies, Vienna University of Economics, Vienna, Austria. Also published in WU Memo, no. 43 (12 October 1990), Vienna University of Economics, pp. 42-51.
- Andrews, R. N. L. 1987. Federal Approaches for Ground Water Management. In James, T. E., Jr., L. W. Canter, R. N. L. Andrews and M. Jaffe, Ground Water Quality Management: A Discussion of Institutional Models and Standards, Chapter 2. A report to the Office of Ground Water Protection, U.S. Environmental Protection Agency. Norman, OK: Environment and Ground Water Institute, University of Oklahoma.
- Andrews, R. N. L., and M. A. Smith. 1984. Opportunities for Promotion of Environmental Auditing Through State Level Initiative: Results of an Exploratory Effort in North Carolina. A report to the U.S. Environmental Protection Agency. Chapel Hill: UNC Institute for Environmental Studies, January 1984. 9 pp. plus 67 pp. appendices.
- Andrews, R. N. L., and R. F. Christman. 1984. Final Report - Seminar on Management of the Environment: Camerounian Realities. A report to the Southeast Consortium for International Development and U.S. Agency for International Development. Chapel Hill: UNC Department of Environmental Sciences and Engineering, February 1984. 10 pp. plus appendices.
- Andrews, R. N. L. 1982. Political/Legal Domain Analysis. In K. Chen, P. Appasamy and M. Donahue, Environmental Problems Anticipatory System. A report to the U.S. Environmental Protection Agency, EPA Contract No. CR-807332-01-0, Appendix B. Ann Arbor: Program in Technology Assessment, University of Michigan.
- Andrews, R. N. L. 1979. The Value of Time in Environmental Decision Processes. Ann Arbor: School of Natural Resources, University of Michigan. Two vols. (with Gunter Schramm et al.).
- Edwards, F., and R. N. L. Andrews. 1979. Writing, Thinking and Natural Resource Policy Studies. Ann Arbor, Michigan: School of Natural Resources, University of Michigan.
- Andrews, R. N. L., and M. J. Waits. 1978. Environmental Values in Public Decisions: A Research Agenda. Ann Arbor: School of Natural Resources, University of Michigan. 96 pp. (Also available from U.S. National Technical Information Service, Springfield, Va., Report No. PB-29305/AS [A05]).
- Andrews, R. N. L.; Cromwell, P.; Enk, G. A.; Farnworth, E. G.; Hibbs, J. R.; and V. L. Sharp. 1977. Substantive Guidance for Environmental Impact Assessment: An Exploratory Report. Indianapolis, IN: The Institute of Ecology. 79 pp.

- Andrews, R. N. L. 1976. Fisheries and Integrated Mekong River Basin Development. Ann Arbor: School of Natural Resources, University of Michigan. Executive Volume 367 pp., plus two appendix volumes (with Karl F. Lagler et al.).
- Andrews, R. N. L. 1972. Research on the effects of the National Environmental Policy Act of 1969 on water resource planning in the State of North Carolina (funded by U.S. Office of Water Resources Research). Published in Maynard M. Hufschmidt, Environmental Statements and Water Resource Planning in North Carolina. Raleigh, NC: Water Resources Institute of the University of North Carolina, Report No. 94, June 1974. 127 pp.
- Andrews, R. N. L. 1972. Environmental Policy and Administrative Change: The National Environmental Policy Act of 1969, 1970-71. Chapel Hill, North Carolina: University of North Carolina (dissertation). A comparison of the responses of four federal agencies to this legislation. 512 pp.
- Andrews, R. N. L. 1970. The Tennessee Valley Authority as an Environmental Agency. Washington, DC: U.S. Office of Management and Budget (internal staff analysis, unpublished). An evaluation of the performance and capabilities of the agency in relation to national priorities for study and improvement of the environment. 81 pp.
- Andrews, R. N. L. 1970. The Atomic Energy Commission and the States: Critical Issues in Reactor Siting. Chapel Hill, NC: Department of City and Regional Planning (departmental paper). 39 pp.

Conference Papers

- Andrews, R.N.L. 2011. State Environmental Policy Innovations: North Carolina's Clean Smokestacks Act, Panel on Innovative Solutions to Complex Policy and Management Problems: Air Pollution and Global Warming, Annual Research Conference of the Association for Public Policy Analysis and Management, Washington, DC, November 3, 2011
- Andrews, Richard N. L.; Edwards Jr., Daniel; and Andrew Hutson. 2004. Formalized Environmental Management Procedures: What Drives Performance Improvements? Evidence from Four US Industries. Conference on "Corporate Environmental Behavior and the Effectiveness of Government Interventions," sponsored by the National Center for Environmental Research, U.S. Environmental Protection Agency. Washington, DC, April 27, 2004.
- Hutson, Andrew M.; Andrews, Richard N. L.; and Daniel Edwards Jr. 2003. Environmental Management Systems in the United States and Mexico: Evaluating Performance Under Mandates. Paper presented at the 25th Annual Research Conference, Association for Public Policy Analysis and Management, Washington, DC, November 6, 2003.
- Andrews, Richard N. L. 2004. Public Policy Doctoral Programs: UNC As an Example of a Strong-Core Model. Panel on "Seeking Common Ground: What Every Ph.D. Program in Public Policy Should Require", Spring Conference of the Association for Public Policy Analysis and Management, Washington, DC, March 20, 2004.
- Andrews, R. N. L.; Hutson, Andrew M.; and Daniel Edwards, Jr. 2003. Environmental Management Under Pressure: How Do Mandates Affect Performance? Paper presented at the Conference on "Leveraging the Private Sector: Management Strategies for Environmental Performance," co-

sponsored by the Kennedy School of Government of Harvard University and Resources for the Future. Washington, DC, July 31, 2003.

- Andrews, R. N. L., and Daniel Edwards, Jr. 2003. Do EMSs Improve Performance? State-EPA Environmental Innovations Symposium, Washington, DC, June 12, 2003.
- Andrews, R. N. L., and Daniel Edwards, Jr. 2003. What Differences Does an EMS Make? Paper presented at the 6th Annual National Conference on “Learning Together: Environmental Innovation and Environmental Management Systems,” sponsored by the Multi-State Working Group on Environmental Management Systems, San Antonio, Texas, June 3, 2003
- Andrews, R. N. L. 2003. Response to “The Strange Case of Environmental Impact Assessment,” by Joshua Ashenmiller. Miller Center Conference on Politics and History, University of Virginia, May 9-10, 2003.
- Andrews, R. N. L. 2003. Environmental Management Systems: Do They Improve Performance? Presentation to U.S. EPA Innovation Action Council [all deputy administrators, agency-wide], Washington, DC, April 8, 2003.
- Andrews, R. N. L. 2003. Environmental Management Systems: Do They Improve Performance? Presentation to U.S. EPA senior EMS managers, Washington, D.C., March 12, 2003.
- Andrews, R. N. L. 2003. Sustainable Enterprise: Implications for International Finance and Investment. New America Foundation, Washington, D.C., March 16, 2003.
- Andrews, R. N. L. 2002. Management Systems and Third-Party Auditing. Roundtable on “Reforming Regulatory Enforcement,” 24th Annual Research Conference, Association for Public Policy Analysis and Management, Dallas, Texas, November 7, 2002.
- Andrews, R. N. L. 2002. The Present and Future of FDR’s Environmental Legacy. Conference on “Recovering the Environmental Legacy of FDR,” Franklin D. Roosevelt Library and Presidential Museum, Hyde Park, New York, October 26, 2002.
- Edwards Jr., Daniel; Andrews, R. N. L.; and Deborah Amaral. 2002. EMSs and Performance Change: What Happens? Environmental Innovations Summit, Crystal City, VA, September 18, 2002.
- Edwards, Daniel (David), Jr.; Amaral, Deborah; and R. N. L. Andrews. 2002. EMSs and Performance Change: What Happens? Paper presented at the National Conference on “Moving to Higher Performance Using Environmental Management Systems,” sponsored by the Multi-State Working group on Environmental Management Systems, Orlando, Florida, June 3-4, 2002.
- Andrews, R. N. L. 2001. Third-Party Certification of Environmental Management Systems: Effectiveness Issues in ISO 14001 Auditing and Registration. Paper presented at the Colloquium on Certification Institutions and Private Governance: New Dynamics in the Global Protection of Workers and the Environment, Seventh Annual Colloquium on Environmental Law and Institutions, Duke University, Durham, NC, December 8, 2001.
- Gallagher, Deborah Rigling; Andrews, R. N. L.; Chandrachai, Achara; and Kaewta Rohitratana. 2001. Implementation of Environmental Management Systems in the United States and

- Thailand. Paper presented at the Twenty-Third Annual Research Conference of the Association for Public Policy Analysis and Management, Washington, D.C., November 1, 2001.
- Andrews, R. N. L. 2001. Similarities and Differences Among Environmental Management Systems. Paper presented at the National Conference on “Learning Together 2001: Using Environmental Management Systems To Build A Better Future,” sponsored by the Multi-State Working Group on Environmental Management Systems. Philadelphia, Pennsylvania, June 4-5, 2001.
- Andrews, R. N. L. 2001. What Can we Learn From EMS Implementation Experience? Paper presented at the American Society for Quality Conference on The ISO Transition: Managing New Opportunities, Reno, Nevada, March 22, 2001.
- Gallagher, Deborah Rigling, and R. N. L. Andrews. 2001. ISO 14001 as an Environmental Management Tool: How is the Flexibility of the ISO 14001 Standard Applied? Paper presented at the Ninth International Conference of the Greening of Industry Network, Bangkok, Thailand, January 21-24, 2001.
- Darnall, Nicole, and R. N. L. Andrews. 2001. Environmental Signaling and EMS Adoption: Facility Motivations and Public Policy Implications. Paper presented at the Ninth International Conference of the Greening of Industry Network, Bangkok, Thailand, January 21-24, 2001.
- Andrews, R. N. L. 2001. Environmental Policies for Pollution Prevention: the United States’ Experience. Paper presented to the Thailand Business Council for Sustainable Development, January 16, 2001.
- Andrews, R. N. L. 2000. World Experience With Environmental Management Systems. CEO Forum on Environmental Management Systems, 62nd Anniversary Forum of the Faculty of Commerce and Accountancy, Thammasat University, Bangkok, Thailand, November 24, 2000.
- Andrews, R. N. L. 2000. The Industrial Revolution and the Environment. Conference on the Humanities and the Environment, UNC-Asheville, November 10-11, 2000.
- Andrews, R. N. L. 2000. Environmental Planning: Planning to Protect Our Ecological Future. Second U.S.-German State Leadership Forum, Dresden, Germany, September 15, 2000.
- Andrews, R. N. L. 2000. NDEMS Database Update: Baseline and Early EMS Design Data Analysis. National Conference on “Learning Together 2000: Environmental Management Systems, Environmental Performance and Regulatory Innovation,” sponsored by the Multi-State Working Group on Environmental Management Systems, San Diego, California, June 6, 2000.
- Andrews, R. N. L. 2000. Governance and the Environment: An Historical Perspective on U.S. Institutions. Sustainable Governance: The Institutional Side of Sustainable Development, Fifth Annual Cummings Colloquium on Environmental Law and Institutions, Duke University, April 27, 2000.
- Andrews, R. N. L.; Darnall, N.; and Gallagher, D. 1999. Environmental Management Systems: A Sustainable Strategy for a Sustainable World? Eighth International Conference of the Greening of Industry Network, “Sustainability: Ways of Knowing, Ways of Acting,” Kenan-Flagler Business School, University of North Carolina, Chapel Hill, North Carolina, November 14-17, 1999

- Gallagher, D.; Darnall, N.; and R. N. L. Andrews. 1999. International Standards for Environmental Management Systems: A Future Promise for Environmental Policy? Annual Meeting of the Association for Public Policy Analysis and Management, Washington, D.C., November 5, 1999.
- Andrews, R. N. L.; Amaral, D.; Darnall, N.; Gallagher, D. R.; Keiner, S. T.; Feldman, E.; and M. Mitchell. 1999. The National Database on Environmental Management Systems (NDEMS): Data Management and Research Program. National Research Summit on Environmental Management Systems, sponsored by the Multi-State Working Group on Environmental Management Systems in cooperation with the Brookings Institution and the U.S. EPA, Washington, DC, November 2, 1999.
- Andrews, R. N. L. 1999. National Database on Environmental Management Systems: Data Collection Update—Past Accomplishments and Future Plans. National Conference on “Learning Together: Environmental Management Systems, Environmental Performance and Regulatory Innovation,” sponsored by the Multi-State Working Group on Environmental Management Systems. Milwaukee, Wisconsin, July 22, 1999.
- Andrews, R. N. L.; Darnall, N.; Gallagher, D. R.; and J. Villani. 1998. Environmental Regulation and Business “Self-Regulation:” Effects of ISO-14000 Environmental Management Systems on the Environmental and Economic Performance of U.S. Businesses. Paper presented at the annual meeting of the Association for Public Policy Analysis and Management, New York, October 29, 1998.
- Eggers, D. M.; Villani, J.; and R. N. L. Andrews. 1998. Factors Predicting Successful Innovative Environmental Technology Adoption: Perceptions of Environmentally Regulated Innovating Facilities. Paper presented at the annual meeting of the Association for Public Policy Analysis and Management, New York, NY, November 1998.
- Villani, J.; Eggers, D. M.; Andrews, R. N. L.; and F. Yucel. 1997. Regulatory Barriers to Environmental Technology Adoption: The Role of 3rd Party Information Providers. Paper presented at the Annual Meeting of the Association for Public Policy Analysis and Management, Washington, D.C., November 8, 1997.
- Eggers, D. M.; Yucel, F.; Villani, J.; and R. N. L. Andrews. 1997. Environmental Regulations as Barriers to the Adoption of Environmental Technologies. Annual Meeting of the Association for Public Policy Analysis and Management, Washington, D.C., November 8, 1997.
- Andrews, R. N. L. Environmental Regulation and Self-Regulation of Businesses. Workshop on “The Ecological State: Towards a New Generation of Environmental Policies,” sponsored by the European Union, Seville, Spain, November 28-December 1, 1996.
- Andrews, R. N. L. 1996. Forms of Economic Transition and Implications for Environmental Policy. *Environmental Policy for Economies in Transition: Lessons Learned and Future Directions*, Marie D. Livingston, ed. Proceedings of the Resource Policy Consortium Symposium. Washington, D. C., May 20-21, 1996. Greeley, CO: Department of Economics, University of Northern Colorado.
- Sauer, P.; Dvorak, A.; Carmin, J.; Paroha, L.; and R. N. L. Andrews. 1995. Household Conversion to Cleaner Fuel. Working Paper S95-01. Chapel Hill, NC: UNC Center for Urban and Regional Studies.

- Mensik, I. S.; Andrews, R. N. L.; and P. Sauer. 1994. Comparative Study of Environmental, and Other Student Values. Working Paper, Curtin University (Western Australia).
- Andrews, R. N. L. 1995. Socioeconomic Research Needs for Comparative Risk Analysis. *Proceedings of the Fourth U.S.-Dutch International Symposium, Comparative Risk Analysis and Priority Setting for Air Pollution Issues*, Si Duk Lee and Toni Schneider, eds. Keystone, CO, June 7, 1993. Pittsburgh, PA: Air and Waste Management Association.
- Paterson, C. J., and R. N. L. Andrews. 1993. Procedural and Substantive Fairness in Risk Decisions: Comparative Risk Assessment Procedures. Paper presented at the Workshop on Risk and Fairness, International Institute for Applied Systems Analysis, Laxenburg, Austria, June 20-22, 1993.
- Andrews, R. N. L. 1993. Environment, Economic Restructuring, and Decentralization of Governance in Czechoslovakia. Paper presented at the 1993 Annual Meeting of the American Association for the Advancement of Science, Boston, Massachusetts, February 13, 1993.
- Andrews, R. N. L. 1992. New Strategies for Environmental Policy. Paper presented at the 1992 Energy Policy Issues Forum, The Aspen Institute, Aspen, Colorado, August 2, 1992.
- Andrews, R. N. L. 1991. Policy and Regulatory Options and Implications. Paper presented at the Workshop on Environmental Health Priorities, U. S. Agency for International Development, Washington, DC, February 14.
- Andrews, R. N. L. 1990. Environmental Change and Public Health: The Next Fifty Years. Paper presented at the Symposium on Science, Policy, and Value Issues in Global Environmental Change, Annual Meeting of the American Association for the Advancement of Science, New Orleans, LA, February 18.
- Andrews, R. N. L. 1990. Opportunities and Needs in Applied Environmental Research and Development. Presentation to the Senior Managers Meeting, Office of Research and Development, U. S. Environmental Protection Agency. January 29.
- Andrews, R. N. L. 1989. Research Needs for Waste Reduction. Paper presented at the National Research Council Workshop on Waste Reduction Research Needs, Annapolis, MD, May 8.
- Andrews, R. N. L. 1988. Waste Reduction for Toxic Substances. Paper presented at the Toxic Waste Symposium, University of California at Santa Cruz, June 24.
- Andrews, R. N. L. 1988. Regional Roles in Solid Waste Management. Paper presented at the annual meeting of the National Association of Regional Councils, Hartford, CT, May 23.
- Andrews, R. N. L. 1988. Uses of Science in Public Controversies: New Roles for State Science Academies. Paper presented at the annual meeting of the American Association for the Advancement of Science, Boston, MA, February 14.
- Andrews, R. N. L. 1988. American Environmental Policy: Science or Politics? Paper presented at the Center for Technology, Environment and Development, Clark University, Worcester, MA, February 11.

- Andrews, R. N. L. 1987. Socio-Economic Aspects of Environmental Impact Assessment: The United States Experience. Paper presented at the Conference on Socio-Economic Aspects of Environmental Impact Assessment, Bologna, Italy, October 28. Published in proceedings.
- Susskind, L., and R. N. L. Andrews. 1987. An Agenda for Research in Negotiation of International Environmental Issues: Report of the US Environment and Natural Resources Task Group. Paper presented at the Conference on Processes of International Negotiation, Laxenburg, Austria, May 18-22. In F. Mautner-Markhof (ed.), *Processes of International Negotiations*. Boulder, CO: Westview Press, 1989.
- Andrews, R. N. L. 1987. Environmental Management: Symbolic Battles and Real Places. Paper presented at the annual meeting of the American Society for Public Administration, Boston, MA, March 30.
- Andrews, R. N. L. 1986. Local Governments and Ground Water Pollution Control. Proceedings of the National Symposium on Local Government Options for Ground Water Pollution Control, Atlanta, GA, January 16-17, 1986. Norman, OK: Environment and Ground Water Institute, University of Oklahoma. Abridged version also published in *Kentucky Environment*, Vol. II, No. 4 (October 1), pp. 2-5.
- Andrews, R. N. L. 1985. Environmental Impact and Risk Assessment: Learning from Each Other? Paper presented at the Task Force Meeting on Risk and Policy Analysis Under Conditions of Uncertainty, Laxenburg, Austria, November 25-27. In C. T. Miller, P. R. Kleindorfer and R. E. Munn (eds.), *Conceptual Trends and Implications for Risk Research*. Laxenburg, Austria: International Institute for Applied Systems Analysis, Report No. CP-86-26, September 1986.
- Andrews, R. N. L. 1985. Issues Facing Planners in Hazardous Waste Management. Paper presented at the Conference on Emerging Issues in Environmental Analysis and Planning: Implications for Professional Education, University of Cincinnati, April 13.
- Andrews, R. N. L. 1985. Not with a Bang but a Whimper: Apocalypticism and the Environment. Lecture presented at the seminar on "The End of the World," UNC Humanities Program, April.
- Andrews, R. N. L. 1985. Developing a Local Hazard Management Program. Paper presented at the second annual meeting of the National Association of Local Governments on Hazardous Waste, Washington, DC, April 2.
- Andrews, R. N. L. 1985. Economic Impacts of Hazardous Waste Management Facilities. Paper presented at the Conference on Environmental Issues Facing North Carolina, sponsored by North Carolina Citizens for Business and Industry, Raleigh, NC, March 28.
- Andrews, R. N. L., and T. K. Pierson. 1984. Hazardous Waste Management: Local Opportunities in a Federal Context. Paper presented at the North Carolina Conference on Managing Hazardous Waste: Potential for Local Involvement. Raleigh, NC, January 10.
- Andrews, R. N. L. 1983. Health and the Environment, 1983-2000. Address to the annual meeting of the North Carolina Public Health Association, Raleigh, NC, September 21.
- Andrews, R. N. L., and T. K. Pierson. 1983. Hazardous Waste Facility Siting Processes: Experience from Seven States, and Implications for Public and Private Roles. Paper presented at the annual meeting of the American Society for Public Administration, New York, NY, April 16-19.

- Andrews, R. N. L., and T. K. Pierson. 1983. Analysis of State Hazardous Waste Siting Efforts to Date: Where Do We Go from Here? Paper presented at the National Hazardous Waste Siting Conference, Chicago, IL, April 1. Sponsored by the National Governors' Association and others.
- Andrews, R. N. L.; Pierson, T. K.; and P. A. Hausman. 1982. Public Management of Hazardous Wastes: A Preliminary Survey of State Approaches. Proceedings of the Fourth Annual UNC Urban Affairs Conference, Chapel Hill, March.
- Andrews, R. N. L. 1980. Impact Statements and Regulatory Reform. Paper presented at the National Conference on Management of Energy-Environment Conflict, Aspen Institute, Reston, MD, May 20-22, 1980.
- Andrews, R. N. L., and P. F. Nowak (eds.). 1980. *Off-Road Vehicle Use: A Management Challenge*. Proceedings of a symposium held in Ann Arbor, MI, March 17-18. Ann Arbor: School of Natural Resources, University of Michigan.
- Andrews, R. N. L. 1980. A Critical Analysis of "Integrative Impact Assessment." Paper presented at the 1980 annual meeting of the American Association for the Advancement of Science, San Francisco, CA, January 4-8.
- Andrews, R. N. L. 1979. Landscape Values in Public Decisions. In *Proceedings of Our National Landscape, A Conference on Applied Techniques for Analysis and Management of the Visual Resource*, Incline Village, NV, April 23-25, 1979. Berkeley, CA: U.S. Forest Service, Pacific Southwest Experiment Station, Report PSW-35.
- Andrews, R. N. L. 1977. Implementation of Environmental Mandates: Strategies for Coping with an Overloaded Agenda. Paper presented at the annual meeting of the American Society for Public Administration, Atlanta, GA, April 1977.
- Andrews, R. N. L. 1975. State of the Guidelines: A Rough Basis for Discussion. Paper presented at the Workshop on Substantive Guidelines for Environmental Impact Statements, sponsored by The Institute of Ecology/Environmental Impact Assessment Project, Billings, MT, June 1975. Published in Institute of Ecology, Environmental Impact Assessment Project, *Working Papers on Substantive Guidelines for Improving Environmental Impact Statements*. Indianapolis, IN: The Institute of Ecology.
- Andrews, R. N. L. 1975. Impact Analysis and Land Use Planning. Paper presented at the Michigan State University Conference on Integrating Land Use Planning and Environmental Impact Analysis, East Lansing, MI, April 1975. In: *Integrating Land Use Planning and Environmental Impact Analysis*. Proceedings, East Lansing: Department of Resource Development, Michigan State University, pp. 37-45.
- Andrews, R. N. L. 1974. The Future of Planning Education: Response. Paper presented at the Symposium on Planning Education, Chapel Hill, NC, April 1974.
- Andrews, R. N. L. 1973. Comparison of Techniques for Impact Assessment. Paper presented at the Short Course on Impact Assessment in Water Resource Planning, Ann Arbor, MI, June 1973. Fort Belvoir, VA: U.S. Army Engineer Institute for Water Resources.

Andrews, R. N. L. 1973. Methodologies for Environmental Impact Assessment. Paper presented at the Short Course on Impact Assessment in Water Resource Planning, Ann Arbor, MI, June 1973. Fort Belvoir, VA: U.S. Army Engineer Institute for Water Resources.

General Audience Publications and Presentations

Andrews, Pete, and Steve Wall. 2014. A coal-ash cleanup precedent. *Charlotte Observer*, Mar. 29, 2014.

Andrews, R. N. L. 2006. Learning From History: U.S. Environmental Politics, Policies, and the Common Good. *Environment* 48(9):28-44.

Andrews, R. N. L., and Frances Seymour. Spring 2002. From Rio to Johannesburg: Adding New Voices to the Call for Sustainable Development. *Global View* (UNC University Center for International Studies), pp. 10-14 (Spring 2002).

Andrews, R. N. L. 1998. A Professor's Lessons From His Daughter About Dealing With Learning Disabilities. *Chronicle of Higher Education* 45(14):B6-7.

Andrews, R. N. L. 1993. Politics of Privatisation. *New Statesman & Society* 6(245):28-30 (26 March 1993).

Andrews, R. N. L. 1992. Pollution Prevention: Heading Off Potential Problems. *EPA Journal* 18(2):40-45.

Andrews, R. N. L. 1989. The United Nations and the World Environment. Paper presented to the Annual Meeting of the United Nations Association, Orange and Durham Counties (NC) Chapter. December 6.

Andrews, R. N. L. 1989. Science and Environmental Policy. Sigma Xi Lecture, East Carolina University, February 21.

Andrews, R. N. L. 1989. Climate and Human Values. Paper presented at the UNC Humanities Weekend Seminar, "From the Dust Bowl to the Greenhouse: Climate and Human Values, 1930s and 1980s," February 10.

Andrews, R. N. L. 1986. The Southern Environment: Challenges and Opportunities. State Government News 29(11): 21-23.

Andrews, R. N. L.; Pierson, T. K.; and J. Howes. 1984. Hazardous Waste in North Carolina: Management Strategies and Research and Education Needs. *Popular Government* 49(3):5-8 (UNC Institute of Government, Chapel Hill, NC).

Book Reviews

Andrews, R. N. L. 2001. Review of Samuel P. Hays, *A History of Environmental Politics Since 1945*. *Environment* 43(9):41-42.

- Andrews, R. N. L. 1995. Report on Reports: *Toward the 21st Century: Planning for the Protection of California's Environment*. *Environment* 37(4):25-28.
- Andrews, R. N. L. 1995. Review of John Hird, *Superfund: The Political Economy of Environmental Risk*. *American Scientist* 83(3):286-87.
- Andrews, R. N. L. 1992. Review of Paul Portney, *Public Policies for Environmental Protection*, and Ralph Luken, *Efficiency in Environmental Regulation: A Benefit-Cost Analysis of Alternative Approaches*. *American Scientist* 80(3):298-99.
- Andrews, R. N. L. 1991. Review of Robert C. Paehlke, *Environmentalism and the Future of Progressive Politics*, and John Young, *Sustaining the Earth*. *American Scientist* 79(2):183-84.
- Andrews, R. N. L. 1991. Review of P. H. Sand, *Lessons Learned in Global Environmental Governance*. *Natural Resources Forum* (United Nations/Butterworths) 15(2):169-170.
- Andrews, R. N. L. 1988. Review of B. Piasecki and G. Davis, *America's Future in Toxic Waste Management: Lessons from Europe*. *The Environmental Professional* 10(4):363.
- Andrews, R. N. L. 1988. Review of S. P. Hays, *Beauty, Health and Permanence: Environmental Politics in the United States, 1955-1985*. *Environmental Review* 12(1):-61-66.
- Andrews, R. N. L. 1988. Review of P. J. Culhane et al., *Forecasts and Environmental Decision-making: The Content and Predictive Accuracy of Environmental Impact Statements*. *Environmental Impact Assessment Review* 8(3):267-269.
- Andrews, R. N. L. 1987. Review of M. Rushefsky, *Making Cancer Policy*. *American Political Science Review* 81:1374-75.
- Andrews, R. N. L. 1985. Review of W. R. Burch, Jr. and D. R. DeLuca, *Measuring the Social Impact of Natural Resource Policies*. *Growth and Change* 16(1):57.
- Andrews, R. N. L. 1983. Review of R. Seley, *The Politics of Public Facility Siting* and M. O'Hare *et al.*, *Facility Siting and Public Opposition*. *Environmental Impact Assessment Review* 4(2):224-226.
- Andrews, R. N. L. 1978. Review of Ravinder Jain et al., *Environmental Impact Analysis*. *Environmental Management* 2(2):159.
- Andrews, R. N. L. 1978. Review of J. Gordon Arbuckle *et al.*, *Environmental Law Handbook*. *Environmental Management* 2(2):160-161.
- Andrews, R. N. L. 1977. Review of Harold A. Feiveson *et al.* (eds.), *Boundaries of Analysis*. *Environmental Management* 2(1):67-68.
- Andrews, R. N. L. 1977. Review of Martin S. Baker *et al.*, *Environmental Impact Statements: A Guide to Preparation and Review*. *Environmental Management* 1(6):541-542.
- Andrews, R. N. L. 1976. Review of Robert G. Healy, *Land Use and the States*, and R. Robert Linowes and Don T. Allensworth, *The States and Land Use Control*. *Environmental Management* 1(2): 159-161.

Andrews, R. N. L. 1974. Review of Frederick R. Anderson, *NEPA In the Courts*. *Journal of Forestry* 72:230-231.

Andrews, R. N. L. 1973. Environmental Impact Analysis (review). *Journal of Soil and Water Conservation* 28:183-184.

Bibliographies

Andrews, R. N. L., and M. J. Waits. 1980. *Environmental Values in Public Decisions: A Research Bibliography*. Monticello, Ill.: Vance Bibliographies.

June 2015