

## **RICHARD NIGEL LYON ANDREWS**

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### **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, Department of Public Policy, 2002 to present; and Curriculum for the Environment and Ecology, 2009 to present; and Carolina Environmental Program, 2002-09; and Department of Environmental Sciences and Engineering, Gillings School of Global Public Health, 1981 to present; and Department of City and Regional Planning, 1981 to present.

Administrative and elected appointments: Chair, Department of Public Policy, 2006 to present; 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, 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

## 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**

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  
North Carolina Center for Public Policy Research  
Society for the Policy Sciences

## **Professional Activities**

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

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

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

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

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, 62<sup>nd</sup> 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- .

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- .

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 ("NC 2000" report: chief staff member, Natural Resources Panel), 1982-84.

### **Consultation**

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 (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 (2<sup>nd</sup> edition). New Haven, CT: Yale University Press. xvii + 515 pp.

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.

### 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.
- Journal Articles*
- 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, vol. 46, pp. 41-56.
- Andrews, R. N. L. 2001. Politics, Economics, and Perceptions. Conservation Biology, vol. 15, no. 6, pp. 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, vol. 44, no. 2, pp. 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, vol. 9, no. 3 (Spring 2000), pp. 1-9.
- Andrews, R. N. L. 1998. Environmental Regulation and Business "Self-Regulation." Policy Sciences, v. 31, no. 3, pp. 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, vol. 4, no. 3, pp. 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, vol. 4, no. 3, pp. 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, volume 5, no. 2, pp. 147-160.
- Andrews, R. N. L. 1995. Reform or Reaction: EPA at a Crossroads. Environmental Sciences & Technology, Vol. 29, No. 11, pp. 505A-510A. Reprinted in Today's Chemist at Work, Vol. 5, No. 3, pp. 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, Vol. 23, No. 1, pp. 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, Vol. 14, No. 2, pp. 111-136.
- Andrews, R. N. L. 1993. Long-Range Planning in Environmental and Health Regulatory Agencies. Ecology Law Quarterly, Vol. 20, No. 3, pp. 515-582.
- Andrews, R. N. L. 1990. Environmental Change and Public Health: An Agenda for the Future. Environmental Impact Assessment Review, Vol. 10, No. 4, pp. 461-64.
- Andrews, R. N. L., and P. H. Clayton. 1990. Environmental Change and Public Health: An Overview. Environmental Impact Assessment Review, Vol. 10, No. 4, pp. 303-08.
- Andrews, R. N. L. 1987. Local Planners and Hazardous Materials. Journal of the American Planning Association, Vol. 53, No. 1, pp. 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, Vol. 3, No. 2 (Summer), pp. 195-204.
- Andrews, R. N. L., and T. K. Pierson. 1985. Local Control or State Override: Experiences and Lessons to Date. Policy Studies Journal, Vol. 14, No. 1 (September), pp. 90-99.
- Andrews, R. N. L., 1985. The Road Not Taken. Environmental Science and Technology, Vol. 29, No. 1 (January), p. 3.
- Andrews, R. N. L., and T. K. Pierson. 1984. Hazardous Waste Facility Siting Processes: Experience from Seven States. Hazardous Waste, Vol. 1, No. 3 (Fall), pp. 377-386.
- Andrews, R. N. L. 1982. Benefit-Cost Analysis and Environmental Decision Making: The Merits and Politics of Analytical Requirements. The Environmental Professional, Vol. 4, pp. 281-285.

Earlier version presented at the annual meeting of the National Association of Environmental Professionals, Washington, DC, April 1982.

Andrews, R. N. L. 1981. Environmental Planning in the Eighties. Carolina Planning, Vol. 7, No. 2, pp. 7-10.

Andrews, R. N. L. 1981. Will Benefit-Cost Analysis Reform Regulation? Environmental Science and Technology, Vol. 15, No. 9, pp. 1016-1021.

Andrews, R. N. L. 1980. Values Analysis in Environmental Policy. Policy Studies Journal, Vol. 9, No. 3, Winter 1980, pp. 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, Vol. 20, No. 3, April 1980, pp. 221-241. Earlier version presented at the annual meeting of the American Studies Association, Minneapolis, MN, September 1979.

Andrews, R. N. L., and M. J. Waits. 1980. Theory and Methods of Environmental Values Research. Interdisciplinary Science Reviews, Vol. 5, No. 1, pp. 71-78.

Andrews, R. N. L. 1979. Environment and Energy: Implications of Overloaded Agendas. Natural Resources Journal, Vol. 19, No. 3, pp. 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, Vol. 5, No. 1, pp. 16-21.

Andrews, R. N. L. 1976. Agency Responses to NEPA: A Comparison and Implications. Natural Resources Journal, Vol. 16, No. 2, April 1976, pp. 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, Vol. 6 (March), pp. 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, Vol. 6, No. 1 (Fall), pp. 1-6.

Andrews, R. N. L. 1974. Comments on "An Environmental Evaluation System for Water Resources Planning," by Dee et al. Water Resources Research, Vol. 10, No. 2 (April), pp. 376-378.

Andrews, R. N. L. 1973. A Philosophy of Environmental Impact Assessment. Journal of Soil and Water Conservation, Vol. 28 (September-October), pp. 197-203.

Andrews, R. N. L. 1972. The Council on Environmental Quality: An Evaluation. Journal of Soil and Water Conservation, Vol. 27 (January-February), pp. 8-11.

Andrews, R. N. L. 1971. Three Fronts of Federal Environmental Policy. Journal of the American Institute of Planners, Vol. 37 (July 1971), pp. 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

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 21<sup>st</sup> 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.
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