

MICHAEL R. MOORE

School for Environment and Sustainability
University of Michigan
Ann Arbor, MI 48109-1041
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EDUCATION

Ph.D. Natural Resource Economics, University of Michigan, 1986.
B.A. Economics, University of Colorado, 1977.

HONORS AND AWARDS

Phi Beta Kappa, University of Colorado, 1977.
Summa Cum Laude, University of Colorado, 1977.
Brinser Award, Outstanding Ph.D. student; School of Natural Resources, University of Michigan, 1985.
Economic Research Service, U.S. Department of Agriculture, 1988-1995.
Four ERS Administrator's Special Merit Awards, five Certificates of Merit, and
two Certificates of Appreciation

CURRENT POSITION

Professor of Environmental Economics (2007–present)
School for Environment and Sustainability
University of Michigan

PAST POSITIONS

Associate Dean for Academic Affairs (2017-2019), School for Environment and Sustainability,
University of Michigan.

Associate Dean for Research (2011–2015) and Associate Dean for Academic Affairs (interim, 2008-
2009), School of Natural Resources and Environment, University of Michigan.

Associate Professor, School of Natural Resources and Environment, University of Michigan, 1996-2007.

Economic Research Service, U.S. Department of Agriculture
1986-1990: *Natural Resource Economist*, Water Supply and Demand Section
1990-1992: *Section Leader*, Water Supply and Demand Section
1993-1994: *Section Leader*, Western Water Policy Section

RESEARCH INTERESTS

Environmental and natural resource economics. Specialties in water resource economics and economics of environmental markets. Ongoing research to develop models of the environmentally responsible consumer (with applications to consumption of green products); to study land-use adaptation to weather risk and climate change; and to value water quality using the hedonic price method.

PUBLICATIONS:

Academic journals

Moore, M.R., J.P. Doubek, H. Xu, and B.J. Cardinale. Hedonic Price Estimates of Lake Water Quality: Valued Attribute, Instrumental Variables, and Ecological-Economic Benefits,” *Ecological Economics* (2020), <https://doi.org/10.1016/j.ecolecon.2020.106692>.

Huang, H.H. and M.R. Moore. 2019. Farming Under Weather Risk: Adaptation, Moral Hazard, and Selection on Moral Hazard. In *Agricultural Productivity and Producer Behavior* (W. Schlenker, ed.), National Bureau of Economic Research and University of Chicago Press (2019), p. 77-124.

Bi, Z., G.A. Keoleian, Z. Lin, M.R. Moore, K. Chen, L. Song, Z. Zhao. “Life Cycle Assessment and Spatio-Temporal Optimization of Deploying Dynamic Wireless Charging Technology for Electric Cars.” *Transportation Research Part C* Vol. 100 (2019), p. 53-67.

Xu, H., D.G. Brown, M.R. Moore, and W.S. Currie. “Optimizing Spatial Land Allocation to Balance Water Quality and Economic Returns in a Lake Erie Watershed.” *Ecological Economics* Vol. 145 (2018), p. 104-114.

Mitra, A., and M.R. Moore, “Green Electricity Markets as Mechanisms of Public-Good Provision: Theory and Experimental Evidence,” *Environmental and Resource Economics* (2017): <https://doi.org/10.1007/s10640-017-0136-5>.

Steinman, A., and 26 coauthors (including M.R. Moore), “Ecosystem Services in the Great Lakes,” *Journal of Great Lakes Research* Vol. 43 (2017), p. 161-168.

Chiang, A.C., M.R. Moore, J.X. Johnson, and G.A. Keoleian, “Emission Reduction Benefits of Siting an Offshore Wind Farm: A Temporal and Spatial Analysis of Lake Michigan,” *Ecological Economics* Vol. 130 (2016), p. 263-276

Chiang, A.C., G.A. Keoleian, M.R. Moore, and J.C. Kelly, “Investment Cost and View Damage Cost of Siting an Offshore Wind Farm: A Spatial Analysis of Lake Michigan,” *Renewable Energy*, Vol. 96 (2016), p. 966-976.

Holland, S.P., and M.R. Moore, “Market Design in Cap and Trade Programs: Permit Validity and Compliance Timing,” *Journal of Environmental Economics and Management*, Vol. 66, No. 3 (2013), p. 671-687.

Lenski, S.M., G. A. Keoleian, and M.R. Moore, “An Assessment of Two Environmental and Economic Benefits of ‘Cash for Clunkers’,” *Ecological Economics*, Vol. 96 (2013), p. 173-180.

Michalak, A. E.J. Anderson, D. Beletsky, S. Boland, N.S. Bosch, T.B. Bridgeman, J.D. Chaffin, K.H. Cho, R. Confesor, I. Daloğlu, J. DePinto, M.A. Evans, G.L. Fahnenstiel, L. He, J.C. Ho, L. Jenkins, T. Johengen, K.C. Kuo, E. LaPorte, X. Liu, M. McWilliams, M.R. Moore, D.J. Posselt, R.P. Richards, D. Scavia, A.L. Steiner, E. Verhamme, D.M. Wright, M.A. Zagorski, “Record-setting Algal Bloom in Lake Erie Caused by Agricultural and Meteorological Trends Consistent with Expected Future Conditions,” *Proceedings of the National Academy of Sciences*, Vol. 110, No. 16 (2013), p. 6448-6452.

- Sivaraman, D., and M.R. Moore, "Economic Performance of Grid-Connected Photovoltaics in California and Texas (United States): The Influence of Renewable Energy and Climate Policies," *Energy Policy*, Vol. 49 (2012), p. 274-287.
- Holland, S.P., and M.R. Moore, "When to Pollute, When to Abate? Intertemporal Permit Use in the Los Angeles NO_x Market," *Land Economics*, Vol. 88, No. 2 (2012), p. 275-299.
- Katz, D.L., and M.R. Moore, "Dividing the Waters: An Empirical Analysis of Interstate Compact Allocation of Transboundary Rivers," *Water Resources Research*, Vol. 47, W06513, doi:10.1029/2010WR009736.
- Winkelman, A.G., and M.R. Moore, "Explaining the Differential Distribution of Clean Development Mechanism Projects Across Host Countries," *Energy Policy*, Vol. 39, No. 3 (2011), p. 1132-1143.
- McMillan, C.A., M.R. Moore, G.A. Keoleian, and J.W. Bulkley, "Quantifying U.S. Aluminum In-Use Stocks and Their Relationship with Economic Output," *Ecological Economics*, Vol. 69, No. 12 (2010), p. 2606-2613.
- Moore, M.R., G. McD. Lewis, and D.J. Cepela, "Markets for Renewable Energy and Pollution Emissions: Environmental Claims, Emission-Reduction Accounting, and Product Decoupling," *Energy Policy*, Vol. 38, No. 10 (2010), p. 5956-5966.
- Halsing, D.L., and M.R. Moore, "Cost-Effective Management of Snake River Chinook Salmon: Response to Wilson et al.," *Conservation Biology*, Vol. 23, No. 2 (April 2009), p. 479-481.
- Kotchen, M.J. and M.R. Moore, "Conservation: From Voluntary Restraint to a Voluntary Price Premium," *Environmental and Resource Economics*, Vol. 40, No. 2 (June 2008), p. 195-215.
- Halsing, D.L., and M.R. Moore, "Cost-Effective Management Alternatives for Snake River Chinook Salmon: A Biological-Economic Synthesis," *Conservation Biology*, Vol. 22, No. 2 (April 2008), p. 338-350.
- Kotchen, M.J., and M.R. Moore, "Private Provision of Environmental Public Goods: Household Participation in Green Electricity Programs," *Journal of Environmental Economics and Management*, Vol. 53, No. 1 (January 2007), p. 1-16.
- Kotchen, M.J., M.R. Moore, F. Lupi, and E.S. Rutherford, "Environmental Constraints on Hydropower: An Ex-Post Benefit-Cost Analysis of Dam Relicensing in Michigan," *Land Economics*, Vol. 82, No. 3 (August 2006), p. 384-403.
- Holland, S.P. and M.R. Moore, "Cadillac Desert Revisited: Property Rights, Public Policy, and Water-Resource Depletion," *Journal of Environmental Economics and Management*, Vol. 46, No. 1 (July 2003), p. 131-155.
- Clark, C.F., M.J. Kotchen, and M.R. Moore, "Internal and External Influences on Pro-Environmental Behavior: Participation in a Green Electricity Program," *Journal of Environmental Psychology*, Vol. 23, No. 3 (September 2003), p. 237-246.
- Moore, M.R., E.B. Maclin, and D.W. Kershner, "Testing Theories of Agency Behavior: Evidence from Hydropower Relicensing Decisions of the Federal Energy Regulatory Commission," *Land Economics*, Vol. 77, No. 3 (August 2001), p. 423-442.

- Moore, M.R., N.R. Gollehon, and D. Hellerstein, "Estimating Producer's Surplus with the Censored Regression Model: An Application to Producers Affected by Columbia River Basin Salmon Recovery," *Journal of Agricultural and Resource Economics*, Vol. 25, No. 2 (December 2000), p. 325-346.
- Moore, M.R., "Estimating Irrigators' Ability-to-Pay for Reclamation Water," *Land Economics*, Vol. 75, No. 4 (November 1999), p. 562-578.
- Aillery, M., M.R. Moore, M. Weinberg, G. Schaible, and N. Gollehon, "Salmon Recovery in the Columbia River Basin: Analysis of Measures Affecting Agriculture," *Marine Resource Economics*, Vol. 14, No. 1 (Spring 1999), p. 15-40.
- Gardner, R., M.R. Moore, and J.M. Walker, "Governing a Groundwater Commons: A Strategic and Laboratory Analysis of Western Water Law," *Economic Inquiry*, Vol. XXXV, No. 2 (April 1997), p. 218-234.
- Moore, M.R., A. Mulville, and M. Weinberg, "Water Allocation in the American West: Endangered Fish Versus Irrigated Agriculture," *Natural Resources Journal*, Vol. 36 (Spring 1996), p. 319-357.
- Moore, M.R., and A. Dinar, "Water and Land as Quantity-Rationed Inputs in California Agriculture: Empirical Tests and Water Policy Implications," *Land Economics*, Vol. 71 (November 1995), p. 445-461.
- Moore, M.R., N.R. Gollehon, and M.B. Carey, "Multicrop Production Decisions in Western Irrigated Agriculture: The Role of Water Price," *American Journal of Agricultural Economics*, Vol. 76, No. 4 (November 1994), p. 859-874.
- Moore, M.R., N.R. Gollehon, and M.B. Carey, "Alternative Models of Input Allocation in Multicrop Systems: Irrigation Water in the Central Plains, United States," *Agricultural Economics*, Vol. 11 (1994), p. 143-158.
- Dinar, A., M. Aillery, and M.R. Moore, "A Dynamic Model of Soil Salinity and Drainage Generation in Irrigated Agriculture: A Framework for Policy Analysis," *Water Resources Research*, Vol. 29, No. 6 (June 1993), p. 1527-1537.
- Moore, M.R., N.R. Gollehon, and D.H. Negri, "Alternative Forms for Production Functions of Irrigated Crops," *Journal of Agricultural Economics Research*, Vol. 44, No. 3 (1993), pp. 16-32.
- Moore, M.R., and D.H. Negri, "A Multicrop Production Model of Irrigated Agriculture, Applied to Water Allocation Policy of the Bureau of Reclamation," *Journal of Agricultural and Resource Economics*, Vol. 17, No. 1 (July 1992), pp. 29-43.
- Moore, M.R., "The Bureau of Reclamation's New Mandate for Irrigation Water Conservation: Purposes and Policy Alternatives," *Water Resources Research*, Vol. 27, No. 2 (February 1991), pp. 145-155.
- Moore, M.R., "Native American Water Rights: Efficiency and Fairness," *Natural Resources Journal*, Vol. 29 (Summer 1989), pp. 763-791.
- Kim, C.S., M.R. Moore, J.J. Hanchar, and M. Nieswiadomy, "A Dynamic Model of Adaptation to Resource Depletion: Theory and an Application to Groundwater Mining," *Journal of Environmental Economics and Management*, Vol. 17, No. 1 (July 1989), pp. 66-82.

Book chapters

Hsiang, H.H., and M.R. Moore. "Farming under Weather Risk: Adaptation, Moral Hazard, and Selection on Moral Hazard." In *Agricultural Productivity and Producer Behavior*, W. Schlenker (ed.), University of Chicago Press, Chicago, Illinois (in press; will publish November 2019).

Kotchen, M.J., M.R. Moore, and C.F. Clark, "Environmental Voluntary Contracts Between Individuals and Industry: An Analysis of Consumer Preferences for Green Electricity," in *Environmental Contracts: Comparative Approaches to Regulatory Innovation in the United States and Europe*, E. Orts and K. Deketelaere (eds.), Kluwer Law International, London, UK, 2001, p. 409- 423.

Moore, M.R., A. Mulville, and M. Weinberg, "Water Allocation in the American West: Endangered Fish Versus Irrigated Agriculture," in *Irrigated Agriculture and the Environment*, J. Shortle and R. Griffin (eds.), Edward Elgar Publishing, Cheltenham, UK, 2001. [Reprint of 1996 *Natural Resources Journal* journal article of same title.]

Gardner, R., M.R. Moore, and J.M. Walker, "Governing a Groundwater Commons: A Strategic and Laboratory Analysis of Western Water Law," in *Polycentric Games and Institutions: Readings from the Workshop in Political Theory and Policy Analysis*, M.D. McGinnis (ed.), The University of Michigan Press, Ann Arbor, MI, 2000, p. 285-307 [Reprint of 1997 *Economic Inquiry* journal article of same title.]

Moore, M.R., R. Gardner and J.M. Walker, "Groundwater Institutions: Models and Experiments," in *Designing Institutions for Environmental and Resource Management*, M. Kilgour and E.T. Loehman (eds.), Edward Elgar Publisher, Northampton, MA, 1998, p. 321-338.

Dinar, A., E.T. Loehman, M.P. Aillery, R.E. Howitt, S.A. Hatchett, and M.R. Moore, "Regional Modeling and Economic Incentives to Control Drainage Pollution," in *Theory, Modeling and Experience in the Management of Nonpoint-Source Pollution*, C.S. Russell and J.F. Shogren (eds.), Kluwer Academic Publishers, Boston, MA, 1993, p. 231-267.

Gollehon, N.R., M.R. Moore, M. Aillery, M. Kramer, and G. Schaible, "Modeling Western Irrigated Agriculture and Water Policy: Climate Change Considerations," in *Global Change: Economic Issues in Agriculture, Forestry, and Natural Resources*. J. Reilly and M. Anderson (eds.), Westview Press, Boulder, CO, 1991.

Moore, M.R., D.H. Negri and J. Miranowski, "Cropland Allocation Decisions: The Role of Agricultural Commodity Programs and the Reclamation Water Program," in *The Economics and Management of Water and Drainage in Agriculture*, Dinar and Zilberman (eds.), Kluwer Academic Publishers, Boston, MA, 1991, pp. 575-596.

Government peer-reviewed research publications

Aillery, M., P. Bertels, J. Cooper, M.R. Moore, S. Vogel, and M. Weinberg, "Salmon Recovery in the Pacific Northwest: Agricultural and Other Economic Effects," Agricultural Economic Report No. 727, Economic Research Service, USDA, February 1996.

Schaible, G.D., N.R. Gollehon, M.S. Kramer, M.R. Moore, and M.P. Aillery, "Economic Analysis of Selected Water Policy Options for the Pacific Northwest," Agricultural Economic Report No. 720, Economic Research Service, USDA, June 1995.

Aillery, M., P. Bertels, J. Cooper, M.R. Moore, S. Vogel, and M. Weinberg, "Salmon Recovery in the Pacific Northwest: A Summary of Agricultural and Other Economic Effects," Agriculture Information Bulletin No. 699, Economic Research Service, USDA, June 1994.

Moore, M.R., and M. Weinberg, "Endangered Species Preservation and Western Water Allocation," Agriculture Information Bulletin No. 664-8, Economic Research Service, USDA, April 1993.

Moore, M.R., W. Crosswhite, and J. Hostetler, "Agricultural Water Uses in the United States: 1950-85," *National Water Summary 1987*, U.S. Geological Survey Water-Supply Paper 2350, U.S. Government Printing Office (1990), pp. 93-108.

Kim, C.S., and M.R. Moore, "Public Policies in Water-Resource Use: Their Effect on Groundwater Mining and Surface-Water Imports," Technical Bulletin No. 1764, Economic Research Service, USDA, July 1989.

McGuckin, T., G. Bruner, D. Negri, and M. Moore, "Agricultural Use of Federally Supplied Irrigation Water, 1979-86," Statistical Bulletin No. 788, Economic Research Service, USDA, 1989.

Moore, M.R., and C.A. McGuckin, "Program Crop Production and Federal Irrigation Water," Special Article in *Agricultural Resources: Cropland, Water, and Conservation Situation and Outlook Report*, Economic Research Service, USDA (September 1988), pp. 39-46.

Kim, C.S., J.J. Hanchar, and M.R. Moore, "A New Dynamic Economic Model of Groundwater Mining," Technical Bulletin No. 1734, Economic Research Service, USDA, September 1987.

Negri, D.H., M.R. Moore, C.E. Young, and L. Schluntz, "Surplus Crop Production in the Small Reclamation Projects Act Loan Program of the Bureau of Reclamation," Report to the U.S. Congress, August 1987, 35 pp. (Also available as Agricultural Economic Report No. 592, ERS/USDA, 1988.)

Book reviews

Moore, M.R., "Perestroika Reaches the American West," review of *Markets for Federal Water: Subsidies, Property Rights, and the Bureau of Reclamation*, by Richard W. Wahl. *Journal of Agricultural Economics Research*, Vol. 42, No. 1 (1990), pp. 32-34.

Other publications

Petito, G., G. Burmeister, M.R. Moore, A. Golrokhian, and E. Waisanen. 2017. "Michigan Sustainability Case: Smarting Over Smart Meters: Does Smart Grid Technology Have a Home in Maryland?" *Sustainability: The Journal of Record*, Vol. 10, No. 1 (Feb. 2017), p. 14-23. doi:10.1089/sus.2017.29078.gp.

Messer, K.D., M.J. Kotchen, and M.R. Moore, "Can Shade-Grown Coffee Help Conserve Tropical Biodiversity? A Market Perspective," *Endangered Species Update*, Vol. 17, No. 6 (Nov./Dec. 2000), p. 125-131.

Moore, M.R., "Extending the Economic Theory of Pollution Control to Accumulating Pollutants," *The Environmental Professional*, Vol. 6 (1984): 277-282.

Moore, M.R., "Economic Concepts and Methods for Valuing Protected Natural Areas," Invited paper, World National Parks Congress, Bali, Indonesia, 1982.

PRESENTATIONS AT PROFESSIONAL MEETINGS AND INVITED SEMINARS

“Benefits and Costs of Lake Water Quality: The Hedonic Price Method,” Science-Policy Confluence Conference on Great Lakes Harmful Algal Blooms, Cooperative Institute for Great Lakes Research and Environmental Law & Policy Center. Ann Arbor, MI, May 2, 2018.

“Assessing Property-Value Effects of AOC Remediation,” Great Lakes Areas of Concern annual conference, U.S. Environmental Protection Agency. Sheboygan, WI, May 17, 2018.

“Farming Under Weather Risk: Adaptation, Moral Hazard, and Selection on Moral Hazard,” Understanding Productivity Growth in Agriculture Conference, National Bureau of Economic Research, Cambridge, MA, May 11-12, 2017.

“Agricultural Land Use and Crop Insurance: Adaptation, Moral Hazard, and Selection on Moral Hazard,” Heartland Environmental and Resource Economics Workshop, Champaign, Illinois, November 11-13, 2016.

“Low Great Lakes Water Levels: Understanding the Causes and Potential Consequences.” Invited seminar presentation (and webcast), CILER/Water Center/GLERL, University of Michigan, May 30, 2013.

“Economic Impacts of Extreme Weather: Evidence from a Quasi-Experiment with Great Lakes Lake Levels,” Association of Environmental and Resource Economists contributed paper session, Chicago, IL, January 7, 2012.

“Dividing the Waters: An Empirical Analysis of Interstate Compact Allocation of Transboundary Rivers,” International Water Resource Economics Consortium annual meeting, Berkeley, CA, Nov. 6, 2009.

“When to Pollute, When to Abate: Evidence on Intertemporal Permit Use in the Los Angeles NO_x Market,” USEPA Market Mechanisms and Incentives workshop, Washington, DC, October 18, 2006.

“Testing for Efficiency of the Sulfur Dioxide Allowance Market,” Association of Environmental and Resource Economists contributed paper session, Boston, MA, January 8, 2006. Also presented at the California Workshop on Environmental and Natural Resource Economics, Santa Barbara, CA, November 4, 2006.

“Private Provision of Environmental Public Goods: Household Participation in Green Electricity Programs,” Association of Environmental and Resource Economists contributed paper session, Denver, CO, August 2, 2004.

“Policies to Address Asymmetric Externalities in Groundwater Extraction,” (discussant) Association of Environmental and Resource Economists contributed paper session, Denver, CO, August 2, 2004.

“Conservation Behavior: From Voluntary Restraint to a Voluntary Price Premium,” Invited seminar at the University of Minnesota, April 28, 2003; Association of Environmental and Resource Economists contributed paper session, Denver, CO, August 2, 2004.

“Empirical Results on Reclamation-Served Lands,” Invited speaker at workshop Agricultural Risks in a Water-Short World, Economic Research Service, USDA, Washington, DC, May 24, 2004.

“Welfare from Voluntary Contributions to Public Goods,” Heartland Environmental and Resource Economics Workshop, Ames, IA, September 23-24, 2001.

“*Cadillac Desert* Revisited: Property Rights, Public Policy, and Water-Resource Depletion in the American West,” American Agricultural Economics Association selected paper session, Tampa, FL, July 30-August 2, 2000.

“Private Provision of Public Goods: Evidence from Participation in a ‘Green’ Electricity Program,” Association of Environmental and Resource Economists contributed paper session, Allied Social Science Association Annual Meetings, New York, NY, January 3, 1999. Also presented at the Heartland Environmental and Resource Economics Workshop, Ames, IA, September 19-21, 1999 and in the Natural Resource Economics seminar series, Department of Economics, University of Michigan, Ann Arbor, MI, November 5, 1999.

“Estimating Irrigators’ Ability-to-Pay for Reclamation Water,” Workshop on the Political Economy of Water Pricing Implementation, The World Bank, Washington, D.C., November 4, 1998.

“Testing Theories of Agency Behavior: Hydropower Dam Relicensing Decisions of the Federal Energy Regulatory Commission,” Association of Environmental and Resource Economists contributed paper session, Allied Social Science Association Annual Meetings, Chicago, Illinois, January 4, 1998.

“Governing a Groundwater Commons: Economic Analysis of Western Water Law,” Department of Natural Resource and Environmental Sciences, University of Illinois, March 7, 1997.

“Governing a Groundwater Commons: A Strategic and Laboratory Analysis of Western Water Law,” Program in Environmental and Resource Economics, University of Illinois, March 6, 1997. Also presented in the Natural Resource Economics seminar series, Department of Economics, University of Michigan, Ann Arbor, MI, December 6, 1996.

“Assessing Water Allocation Tradeoffs in the American West: Endangered Fish Versus Irrigated Agriculture,” American Agricultural Economic Association Annual Meetings selected paper session, July 1996.

“Groundwater Property Rights: Laboratory Evidence on the Performance of Entry Restrictions and Stock Quotas,” Association of Environmental and Resource Economists contributed paper session, American Agricultural Economics Association meeting, Orlando, FL, August 2, 1993.

“Alternative Models of Input Allocation in Multicrop Systems: Irrigation Water in the Central Plains,” American Agricultural Economics Association Annual Meeting selected paper session, Orlando, FL, August 2, 1993.

“Water and Land as Quantity-Rationed Inputs in California Agriculture: Empirical Tests and Water Policy Implications,” Western Agricultural Economics Association Annual Meeting selected paper session, July 15, 1992.

“Water Allocation in California: Endangered Fish Versus Agriculture,” Western Economic Association International Annual Meeting selected paper session, July 9-13, 1992.

“Modeling Groundwater Property-Right Systems: A Strategic and Laboratory Analysis,” presented at “Water Quantity/Quality Disputes and Their Resolution” conference, Washington, D.C., May 2-3, 1992.

"Regional Modeling and Economic Incentives to Control Drainage Pollution," Association of Environmental and Resource Economists' workshop *Management of Nonpoint Source Pollution*, Lexington, Kentucky, June 6, 1991.

"A Multicrop Production Model of Lands Served by the Bureau of Reclamation," American Agricultural Economics Association Annual Meeting selected paper session, August 1990.

"Alternative Forms for Production Functions of Irrigated Crops," American Agricultural Economics Association Annual Meeting selected paper session, August 1990.

"Rent Below Its Potential: The Case of Western Surface Water," Eastern Economic Association Annual Meeting contributed paper session, March 1987.

"The Behavior of Firms in Non-Renewable Resource Markets," (discussant) American Economic Association Annual Meeting, New York, NY, January 1985.

GRANTS

Title: Restoration Economics: Investigating the Effects of Area-of-Concern Remediation on Residential Housing Prices and Neighborhood Demographic Characteristics
P.I. Michael Moore
Co-P.I. Robyn Meeks
Award/Years: \$224,180 (2016-2018)
Organization: Michigan Sea Grant (NOAA)

Title: Applying the Hedonic Price Method to Evaluate the Impact of Delisting of Great Lakes Areas of Concern on the Residential Housing Market
P.I. Michael Moore
Co-P.I. Robyn Meeks
Award/Years: \$40,214 (2017)
Organization: Great Lakes Commission

Title: Advancing Offshore Wind Power Siting through Multi-criteria Assessment Integration
P.I. Jarod Kelly
Co-P.I. Michael Moore and others
Award/Years: \$299,933 (2012-2015)
Organization: National Science Foundation

Title: Generating Revenue by Generating Green Electricity: Laboratory Experiments
P.I. Michael Moore
Co-P.I. Arnab Mitra
Award/Years: \$14,000 (2012-2014)
Organization: Erb Institute on Global Sustainable Enterprise (University of Michigan)

Title: Extreme Events Impacts on Water Quality in the Great Lakes: Prediction and Management of Nutrient Loading in a Changing Climate
P.I. Anna Michalak
Co-P.I. Michael Moore (Social Science Lead P.I.) and others
Award/Years: \$4,992,854 (2011-2016)
Organization: National Science Foundation

Title: Are Birds Good for the Economy? Linking Ecology and Economics to Assess Twenty-Five Years of the Conservation Reserve Program
P.I. Michael Moore
Co-P.I. Johannes Foufopoulos
Award/Years: \$15,000 (2010-2011)
Organization: School of Natural Resources and Environment (University of Michigan)

Title: Economic Impacts of Climate Change: Evidence from Random and Regulated Fluctuations in Great Lakes Lake Levels
P.I. Michael Moore
Award/Years: \$14,676 (2009-2010)
Organizations: Office of the Vice President for Research (University of Michigan) and Erb Institute for Global Environmental Enterprise (University of Michigan)

Title: Integrating Resource Assessment, Economics and Policy to Optimize Renewable Electricity Generation
P.I. Duncan Callaway
Co-P.I.s Meredith Fowle, Gregory Keoleian, Thomas Lyon, and Michael Moore
Award/Years: \$199,662 (2007-2009)
Organization: Michigan Memorial Phoenix Energy Institute (University of Michigan)

Title: Clean Energy, Dirty Air: A Policy Coordination Problem Between Renewable-based Electricity Programs and Cap-and-Trade Pollution Programs
P.I. Michael R. Moore
Award/Years: \$20,003 (2006-2007)
Organization: Erb Institute for Global Sustainable Enterprise (University of Michigan)

Title: The Market for RECLAIM Trading Credits: A Theoretical and Empirical Investigation of Intertemporal Trading and Cost Effectiveness
P.I. Michael R. Moore
Co-P.I. Stephen P. Holland
Award/Years: \$119,498 (2004-08)
Organization: U.S. Environmental Protection Agency

Title: Testing for Efficiency of the Sulfur Dioxide Allowance Market
P.I. Gloria Helfand
Co-P.I. Michael R. Moore
Award/Years: \$133,194 (2004-08)
Organization: U.S. Environmental Protection Agency

Title: Introducing Markets for Green Products: Product Demand, Environmental Quality, and Economic Welfare
P.I. Michael R. Moore
Co-P.I. Matthew J. Kotchen
Award/Years: \$68,042 (2001-02)
Organization: U.S. Environmental Protection Agency

Title: The Information-Based Approach to Environmental Policy: An Analysis of Green Electricity Programs in Michigan
P.I. Michael R. Moore

Co-P.I. Matthew J. Kotchen
Award/Years: \$43,843 (2000-02)
Organization: Michigan Department of Environmental Quality

Title: Ecological and Economic Consequences of Hydropower-Related Watershed
Restoration on Salmonid Productivity in Great Lakes Tributaries

P.I.: Edward S. Rutherford
Co-P.I.s: John P. Hoehn, Frank Lupi, Michael R. Moore, and Kevin Wehrly
Award/Years: \$139,655 (1999-2001)
Organization: Michigan Sea Grant College Program (U.S. Department of Commerce)

Title: Altruism and the Private Provision of Public Goods: Individual Decision-
Making in “Green” Electricity Consumption

P.I.: Michael R. Moore
Award/Years: \$8,749 (1997-98)
Organization: Detroit Edison

Title: Life Cycle Design of Building Integrated Photovoltaic Systems

P.I.: Gregory Keoleian
Co-P.I.s: Daniel A. Mazmanian, Michael R. Moore, and Mojtaba Navvab
Award/Years: \$100,000 (1997-99)
Organization: National Science Foundation

Title: Ecological and Economic Impacts of Watershed Restoration on Salmonid
Productivity in Lake Michigan Tributaries

P.I.: Michael R. Moore
Co-P.I.s: Edward S. Rutherford, John P. Hoehn, and Frank Lupi
Award/Years: \$124,188 (1997-2000)
Organization: Michigan Sea Grant College Program (U.S. Department of Commerce)

Title: Econometric Approach to Measuring Irrigators’ Ability-to-Pay for Water

P.I.: Michael R. Moore
Award/Years: \$18,407 (1996-1998)
Organization: Bureau of Reclamation (U.S. Department of the Interior)

Title: Analysis of Hydropower Dam Relicensing Decisions of the Federal Energy
Regulatory Commission

P.I.: Michael R. Moore
Award/Years: \$4,000 (1996-1997)
Organizations: American Rivers, Inc., and National Rivers Coalition

PROFESSIONAL AFFILIATIONS AND SERVICE ACTIVITIES

Member, Promotion and Tenure Committee, School for Environment and Sustainability, University of Michigan, 2020-21.

Coordinator, Specialization in Environmental Policy and Planning, School for Environment and Sustainability, University of Michigan, 2020-21.

Member, Search Advisory Committee for Director of University of Michigan Energy Institute, 2017-2018.

Member, University of Michigan Provost's Committee on Academic Programs in Environment and Sustainability, 2016.

Membership: American Economic Association
Association of Environmental and Resource Economists

Referee: *Journal of Environmental Economics and Management, Environmental and Resource Economics, International Economic Review, American Journal of Agricultural Economics, Land Economics, Climate Change Economics, Journal of Agricultural and Resource Economics, Water Economics and Policy, Water Resources Research, Research in Law and Economics, The Annals of Regional Science, Technological Forecasting and Social Change, Kluwer Academic Publishers, Journal of Industrial Ecology, Hudson River Foundation.*

Editorial Board, *Water Economics and Policy*, 2013-present.

Associate Editor, *Water Resources Research*, 2006-2008.

Faculty Representative, University of Michigan Senate Assembly, 2001-03.

Member, Scientific and Technical Advisory Committee, American Rivers, Inc., 2000-present.

Editorial Council, *Journal of Agricultural and Resource Economics*, 1998-2000.

Moderator, "Environmental Licensing and Siting Decisions" Paper Session, Association of Environmental and Resource Economists Annual Meeting, Chicago, Illinois; January 1998.

Coordinator and co-author, Economic Research Service Study Team of salmon recovery efforts in the Pacific Northwest; 1993 to 1995. Prepared a report to the U.S. Congress on "Salmon Recovery in the Pacific Northwest: Agricultural and Other Economic Effects."

Member, Membership Committee, American Agricultural Economics Association. 1991 to 1994.

Moderator, Water Resource Economics Invited Paper Session, 1993 American Agricultural Economics Association Annual Meeting, Orlando, FL; August 1993.

Participant, W-178 Western Regional Project: Water Management and Conservation in Western Irrigated Agriculture; 1987-1995. Member, subcommittee to write proposal for new project; 1989-1991.

Moderator, Resource Economics Invited Paper Session, 1988 American Agricultural Economics Association Annual Meeting, Knoxville, TN; July 1988.