

## GLORIA ELLEN HELFAND

### ADDRESS:

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Ann Arbor, MI 48109-1041

### EXPERIENCE:

#### **University of Michigan**, 1996-present.

Associate Professor of Environmental Economics in the School of Natural Resources and Environment; teaching and research responsibilities.  
Interim Associate Dean of SNRE, January-June 2004.

#### **U.S. Environmental Protection Agency**, 2000-2006

Special Government Employee as member of Environmental Economics Advisory Committee of the Science Advisory Board.  
Consultant to the Environmental Economics Advisory Committee, 1998-2000.

#### **University of California at Davis**, 1988-1996.

Assistant Professor of Agricultural Economics, 1988-95.  
Associate Professor of Agricultural and Resource Economics and Environmental Studies, 1995-1996. Teaching and research responsibilities.

#### **University of California at Berkeley**.

Research Assistant, June-August 1985 and 1986; 1987-88.  
Teaching Assistant, August-December, 1987.

#### **The Wilderness Society**, Washington, D.C., 1981-84.

Economic and policy analysis on public lands issues, with an emphasis on national forest management, in the Economic Policy Department.

#### **Natural Resources Defense Council**, Washington, D.C., February-June, 1978; 1979-1981.

Research, analysis, and advocacy on national forest management (especially the economics of national forest timber sales) and floodplain management.

### EDUCATION:

#### **University of California at Berkeley**, 1984-1988.

Ph.D. in Agricultural and Resource Economics.

#### **Washington University**, St. Louis, Missouri, 1978-81.

M.A. in Technology and Human Affairs. Concentration in environmental policy.

#### **Swarthmore College**, Swarthmore, Pennsylvania, 1974-78.

B.A. in English Literature, with wide background in the sciences and social sciences.

## **PUBLICATIONS:**

### *Books:*

Gloria E. Helfand and Peter Berck, editors. The Theory and Practice of Command and Control in Environmental Policy. Aldershot, United Kingdom: Ashgate Publishing, 2003.

John Loomis and Gloria Helfand. Environmental Policy Analysis for Decision Making. Dordrecht, The Netherlands: Kluwer Academic Publishers, 2001.

### *Journal Articles and Book Chapters:*

Alissa Kendall, Gregory A. Keoleian, and Gloria E. Helfand. "An Integrated Life Cycle Assessment and Life Cycle Cost Analysis Model for Concrete Bridge Deck Applications." Journal of Infrastructure Systems, accepted for publication.

Gloria E. Helfand, Michael R. Moore, and Yimin Liu. "Testing for Dynamic Efficiency of the Sulfur Dioxide Allowance Market," proceedings of Market Mechanisms and Incentives: Applications to Environmental Policy, U.S. Environmental Protection Agency, December 2006, [http://yosemite.epa.gov/ee/epa/ermfile.nsf/vwAN/EE-0499-04.pdf/\\$File/EE-0499-04.pdf](http://yosemite.epa.gov/ee/epa/ermfile.nsf/vwAN/EE-0499-04.pdf/$File/EE-0499-04.pdf) .

Gloria E. Helfand. "Letter: Consider the Consumer Side of the Market for Catastrophe Insurance," The Economists' Voice 3(6), June 2006. Available at: <http://www.bepress.com/ev/vol3/iss6/art7> .

Gloria E. Helfand, Joon Sik Park, Joan I. Nassauer, and Sandra Kosek. "The Economics of Native Plants in Residential Landscape Designs." Landscape and Urban Planning 78(3) (November 2006): 229-240.

Peter Berck and Gloria E. Helfand. "The Case of Markets vs. Standards for Pollution Policy." Natural Resources Journal 45(2) (Spring 2005): 345-368.

Gloria Helfand and John Wolfe. "Michigan's Environment," chapter 21 in Michigan at the Millennium, Charles Ballard, Paul Courant, Douglas Drake, and Elizabeth Gerber, editors. Lansing, MI: Michigan State University Press, 2003.

Gloria E. Helfand, Peter Berck, and Tim Maull. "The Theory of Pollution Policy," chapter 6 in Handbook of Environmental Economics, Karl-Göran Mäler and Jeffrey Vincent, editors. Amsterdam, The Netherlands: Elsevier Science, 2003, pp. 249-303.

Gloria E. Helfand, "Standards versus Taxes in Pollution Control," chapter 15 in Handbook of Environmental and Resource Economics, Volume 1, Jeroen C.J.M van den Bergh, editor. Northampton, MA: Edward Elgar, 1999, pp. 223-234.

Gloria E. Helfand. "Controlling Inputs to Control Pollution: When Will It Work?" AERE Newsletter (Newsletter of the Association of Environmental and Resource Economists) 19 (November 1999), pp. 13-17.

Gloria E. Helfand and L. James Peyton. "A Conceptual Model of Environmental Justice," Social

Science Quarterly 80 (March 1999), pp. 68-83.

Hongjin Kim, Gloria E. Helfand, and Richard E. Howitt. "An Economic Analysis of Ozone Control in California's San Joaquin Valley." Journal of Agricultural and Resource Economics 23 (July 1998), pp. 55-70.

Douglas M. Larson, Gloria E. Helfand, and Brett W. House. "Second-Best Tax Policies for Controlling Nonpoint Source Pollution." American Journal of Agricultural Economics 78 (November 1996): 1108-1117.

Gloria E. Helfand and Brett W. House. "Regulating Nonpoint Source Pollution under Heterogeneous Conditions." American Journal of Agricultural Economics 77 (November 1995): 1024-1032. Reprinted in Irrigated Agriculture and the Environment, James Shortle and Ronald Griffin, editors (Cheltenham, UK: Edward Elgar Publishing, 2001), and in Agro-Environmental Policy, Sandra S. Batie and Rick Horan, editors (Hampshire, UK: Ashgate Publishing Group, 2004).

Gloria E. Helfand. "Alternative Pollution Standards for Regulating Nonpoint Source Pollution." Journal of Environmental Management 45 (1995): 231-241.

Gloria E. Helfand and Peter Berck. "The Traditional Economics of Natural Resources Management," in A New Century for Natural Resources Management, Richard L. Knight and Sarah F. Bates, eds. Covelo, CA: Island Press, 1995, pp. 89-100.

Peter Berck and Gloria Helfand. "Production Economics," in Encyclopedia of Agricultural Science, Volume 3. San Diego: Academic Press, 1994, pp. 461-470.

Gloria E. Helfand. "The Role of Information as an Incentive for Environmental Control," in New Partnerships: Economic Incentives for Environmental Management, proceedings of an International Specialty Conference, Rochester, NY, November 3-4, 1993. Pittsburgh, PA: Air and Waste Management Association, 1994, pp. 289-297.

Gloria E. Helfand. "Pollution Prevention as Public Policy: An Assessment." Contemporary Economic Policy 12 (October 1994): 104-113.

Gloria E. Helfand and Marilyn D. Whitney. "Efficient Multiple-Use Forestry May Require Land-Use Specialization: Comment." Land Economics 70 (August 1994): 391-395.

Gloria E. Helfand and Jonathan Rubin. "Spreading versus Concentrating Damages: Environmental Policy in the Presence of Nonconvexities." Journal of Environmental Economics and Management 27 (July 1994): 84-91.

Gloria E. Helfand. "The Relative Efficiency of Different Standards When Firms Vary." Natural Resource Modeling 7 (Summer 1993): 203-217.

John Loomis and Gloria Helfand. "A Tale of Two Owls and Lessons for the Reauthorization of the Endangered Species Act." Choices 8 (Third Quarter 1993): 20-21, 24-25.

Gloria E. Helfand. "The Simple Economics of Pollution Prevention." Toxic Substances Journal 12 (1992): 1-11.

Gloria E. Helfand, Brett W. House, and Douglas M. Larson. "Toxics Regulation under California's Proposition 65: A State Law with National Effects." Choices 7 (First Quarter 1992): 18-21.

Jonathan Rubin, Gloria Helfand, and John Loomis. "A Benefit-Cost Analysis of the Northern Spotted Owl." Journal of Forestry 89 (December 1991): 25-30. Replies to Letters to the Editor by Rubin *et al.* in Journal of Forestry 90 (April 1992): 8-9, and 90 (May 1992): 10.

Gloria E. Helfand. "Standards versus Standards: The Effects of Different Pollution Restrictions." American Economic Review 81 (1991): 622-634. "Erratum" by Gloria E. Helfand published in American Economic Review 82 (1992): 369. Reprinted in Environmental Instruments and Institutions, Thomas Tietenberg, Kenneth Button, and Peter Nijkamp, editors (Cheltenham, UK: Edward Elgar Publishing Limited, 1999).

Gloria E. Helfand and Sandra O. Archibald. "California's Proposition 65: A New Regulatory Trend?" in Agriculture and Water Quality: International Perspectives, John B. Braden and Stephen B. Lovejoy, eds. Boulder, CO: Lynne Rienner Publishers, 1990, pp. 147-167.

Peter Berck and Gloria Helfand. "Reconciling the Von Liebig and Differentiable Crop Production Functions." American Journal of Agricultural Economics 72 (1990): 985-996.

Gloria E. Helfand and Peter M. Emerson. "Timber Supply, Community Stability, and the Wilderness Scapegoat." Western Wildlands 8 (Winter 1982): 14-19.

C.L. Clark, W.P. Darby, G.E. Helfand, N.A. New, and H.G. Winger. "Economic, Environmental, and Energy Implications of Engine Ping: A Preliminary Analysis." International Journal of Environmental Studies 16 (1981): 107-115.

#### *Working Papers:*

Peter Berck and Gloria E. Helfand, Introductory Environmental Economics, Pearson Addison Wesley.

Gloria E. Helfand, Michael R. Moore, and Yimin Liu, "The Intertemporal Market for Sulfur Dioxide Allowances."

Yimin Liu and Gloria E. Helfand, "The Effects of the CAFE Standard and Incentive Program on Alternative Fuel Vehicles and Greenhouse Gas Emissions."

Yimin Liu and Gloria E. Helfand, "The Alternative Motor Fuels Act, Alternative Fuel Vehicles, and Greenhouse Gas Emissions."

Gloria E. Helfand, Wendy M. Adams, Meghan Cauzillo, Kathleen Chiang, Sara Deuling, Oliver Kiley, and Attila Tislerics, "Benefits and Costs of Dam Removal: A Case Study of Argo Dam, Michigan."

Gloria E. Helfand and Ann E. Ferris, "Regulating Greenhouse Gas Emissions with Intensity Targets."

*Book Reviews:*

Gloria E. Helfand, review of The New Economy of Nature: The Quest to Make Conservation Profitable, by Gretchen C. Daily and Katherine Ellison, in Endangered Species Update 20(2) (March/April 2003): 47-52.

Gloria E. Helfand, review of Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment, Susan S. Hanna et al., editors, in Society and Natural Resources 11 (April-May 1998): 310-312.

Gloria E. Helfand, review of Environment, Growth and Development: The Concepts and Strategies of Sustainability, by Peter Bartelmus, in Natural Resources Forum 19 (November 1995): 344-345.

Gloria E. Helfand. "A Lack of Optimism," review of Global Development and the Environment: Perspectives on Sustainability, J. Darmstadter, ed., in Natural Resources Forum 17 (Nov. 1993): 329-330.

*Presentations at Professional Meetings:*

Gloria Helfand, Michael Moore, and Yimin Liu, "Testing for Dynamic Efficiency of the Sulphur Dioxide Allowance Market," paper presented at the 14<sup>th</sup> Ulvön Conference on Environmental Economics, Ulvön, Sweden, June 19, 2007.

Gloria Helfand and Michaela Zint, "Social Science Insights for Sustainability," panel organized for the American Association for the Advancement of Science meetings, San Francisco, CA, February 17, 2007; I chaired the session and provided comments for all the speakers.

Gloria Helfand, Michael Moore, and Yimin Liu, "Testing for Dynamic Efficiency of the SO<sub>2</sub> Allowance Market," presented at "Market Mechanisms and Incentives: Applications to Environmental Policy, a workshop sponsored by the U.S. Environmental Protection Agency's National Center for Environmental Economics and the National Center for Economic Research, Washington, D.C., October 18, 2006. Proceedings at [http://yosemite.epa.gov/ee/epa/ermfile.nsf/vwAN/EE-0499-04.pdf/\\$File/EE-0499-04.pdf](http://yosemite.epa.gov/ee/epa/ermfile.nsf/vwAN/EE-0499-04.pdf/$File/EE-0499-04.pdf)

Gloria Helfand, Michael Moore, and Yimin Liu, "Testing for Efficiency of the SO<sub>2</sub> Allowance Market : Preliminary Results," presented at the Heartland Environmental and Resource Economics Workshop, Ames, Iowa, September 19, 2005.

Peter Berck and Gloria Helfand, "Quantities without Apologies: A Sympathetic Review of Command and Control," presented at the Heartland Environmental and Resource Economics Workshop, Ames, Iowa, September 22-23, 2002.

Peter Berck, Gloria E. Helfand, and Hong Jin Kim. "Spatial Variation in Benefits and Costs, or Why Pollution Isn't Always for Sale," presented at the Workshop on Market-Based Instruments

for Environmental Protection, sponsored by the Association of Environmental and Resource Economists and Harvard University, Cambridge, MA, July 1999.

Brett W. House, Gloria E. Helfand, and Douglas M. Larson. "What is the Right Ambient Water Quality Tax?" presented at the American Agricultural Economics Association meetings, Toronto, Ontario, July 1997.

Gloria E. Helfand and L. James Peyton. "A Conceptual Model of Environmental Justice," presented at the Western Economics Association International meetings, San Francisco, California, July 1996.

Gloria E. Helfand. "Controlling Inputs to Control Pollution," presented at the Allied Social Sciences Association meetings, San Francisco, California, January 1996.

Gloria E. Helfand. "Alternative Pollution Standards for Regulating Nonpoint Source Pollution," presented at the Allied Social Sciences Association meetings, Washington, D.C., January 1995.

Brett W. House, Gloria E. Helfand, and Douglas M. Larson, "Evaluating Second-Best Policies for Nonpoint Source Pollution," presented at the annual meeting of the American Agricultural Economics Association, San Diego, CA, August 1994.

Gloria E. Helfand, "The Role of Information as an Incentive for Environmental Control," presented at "New Partnerships: Economic Incentives for Environmental Management," conference sponsored by the Air & Waste Management Association and the U.S. Environmental Protection Agency, Rochester, NY, November 1993.

Brett W. House, Bruce T. Warden, Gloria E. Helfand, Douglas M. Larson, and Louise E. Jackson, "Economic and Environmental Aspects of Nonuniform Agricultural Irrigation," presented at the annual meeting of the American Agricultural Economics Association, Orlando, FL, August 1993.

Gloria E. Helfand and Jonathan Rubin, "Spreading versus Concentrating Damages: Instrument Choice in the Presence of Nonconvexities," presented at the California Workshop on Environmental and Resource Economics and Policy, Santa Barbara, CA, May 1993.

Douglas M. Larson, Gloria E. Helfand, and Brett W. House, "Toxics Regulation and the Burden of Proof: Lessons from California's Proposition 65," presented at the Allied Social Sciences Association meetings, New Orleans, LA, January 1992.

Gloria E. Helfand, "The Relative Efficiency of Different Pollution Standards When Firms Vary," presented at Resource Modelling Association meeting, Arcata, CA, June 1991, and the American Agricultural Economics Association meetings, Manhattan, KS, August 1991.

Gloria E. Helfand and Jonathan Rubin, "The Forest or the Trees: Multiple Use, Dominant Use, and the Importance of Nonconvexities," presented at the Allied Social Sciences Association meetings, Washington, D.C., December 1990.

Gloria E. Helfand, "The Effects on Production and Profits of Different Pollution Control Standards,"

presented at the annual meetings of the American Agricultural Economics Association, Baton Rouge, LA, August 1989.

*Testimony Before U.S. Congress:*

Gloria E. Helfand, F. Kaid Benfield, Justin R. Ward, and Anne E. Kinsinger. "Reform of Uneconomic Federal Timber Sale Procedures is Badly Needed and Long Overdue," Testimony of the Natural Resources Defense Council before the Subcommittee on Public Lands and the Subcommittee on General Oversight, Northwest Power and Forest Management, Committee on Interior and Insular Affairs, United States House of Representatives, June 11, 1985.

Gloria E. Helfand. "Inefficiency in National Forest Timber Management," Testimony (Part Two of the Natural Resources Defense Council before the Subcommittee on Forests, Family Farms and Energy, Committee on Agriculture, the United States House of Representatives, June 5, 1985.

Gloria E. Helfand. Testimony on behalf of the Natural Resources Defense Council on National Flood Insurance Program, in Flood Insurance and Crime and Riot Reinsurance, Hearing before the Subcommittee on Insurance of the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, 96th Congress, Second Session, February 28, 1980, pp. 6-18.

*Other Publications:*

Environmental Economics Advisory Committee of the U.S. Environmental Protection Agency Science Advisory Board. "Advisory on EPA's Issues in Valuing Mortality Risk Reduction." EPA-SAB-08-001. Washington, D.C.: U. S. Environmental Protection Agency, October 12, 2007. <http://www.epa.gov/sab/pdf/sab-08-001.pdf>

Science, Technology, and Public Policy Task Force, University of Michigan. "Final Report." May 2003.

Environmental Economics Advisory Committee of the U.S. Environmental Protection Agency Science Advisory Board. "Affordability Criteria for Small Drinking Water Systems: An EPA Science Advisory Board Report." EPA-SAB-EEAC-03-004. Washington, D.C.: U. S. Environmental Protection Agency, December 30, 2002.

Kenneth K. Tanji, Gloria E. Helfand, and Douglas M. Larson. "BMP Assessment for Agricultural NPS Pollution." Final Report, Agreement No. 0-140-250-0, California State Water Resources Control Board, April 1994.

Gloria E. Helfand. "The Simple Economics of Pollution Prevention." Washington, D.C.: Council on Environmental Quality Discussion Paper 92-1, 1992.

Gloria E. Helfand and Douglas M. Larson. "The Effects of Proposition 65 on Water Pollution Management." Technical Completion Report, Project Number UCAL-WRC-W-770, University of California Water Resources Center, August 1991.

Gloria E. Helfand. "Timber Economics and the Planning Process for the Grand Mesa-Uncompahgre-Gunnison National Forests, Colorado," in Appeal of Plan and EIS for the Grand

Mesa, Uncompahgre, and Gunnison National Forests: Statement of Reasons, by Natural Resources Defense Council et al. Washington, D.C.: Natural Resources Defense Council, December 1983.

Gloria E. Helfand. "Timber Economics and the Planning Process for the San Juan National Forest," in Appeal of Plan and EIS for the San Juan National Forest: Statement of Reasons, by Natural Resources Defense Council et al. Washington, D.C.: NRDC, December 1983.

Peter M. Emerson and Gloria E. Helfand. Wilderness and Timber Production in the National Forests of California. Washington, D.C.: The Wilderness Society, July 1983.

Gloria E. Helfand. Timber Economics and Other Resource Values: The Bighorn-Weitas Roadless Area, Idaho. Washington, D.C.: The Wilderness Society, May 1983.

Thomas J. Barlow and Gloria Helfand. Reforming the Unfair Timber Magnet: Proper Pricing of Federal Timber to Prevent the Penalizing of Private Forestry. Washington, D.C.: Natural Resources Defense Council, May 1982.

Gloria E. Helfand and Kenneth W. Erickson. Coal and Wilderness: A Case Study of Comparative Values in the Proposed Cranberry Wilderness, West Virginia. Washington, D.C.: The Wilderness Society, April 1982.

Gloria E. Helfand. "Timber Prices Affect Forest Users." Re:Sources 1 (Winter 1981): 19.

Thomas J. Barlow and Gloria E. Helfand. "Timber Giveaway -- A Dialogue." The Living Wilderness 44 (June 1980): 38-39.

Thomas J. Barlow, Gloria E. Helfand, Trent W. Orr, and Thomas B. Stoel. Giving Away the National Forests: An Analysis of U.S. Forest Service Timber Sales Below Cost. Washington, D.C.: Natural Resources Defense Council, June 1980.

Gloria E. Helfand. "You Lose if the National Flood Insurance Program Increases Flood Losses." Washington, D.C.: Natural Resources Defense Council, May 1978.

## **SERVICE AND PUBLIC ACTIVITIES:**

### *Service to the Profession*

- Member of the Board of Directors of the Association of Environmental and Resource Economists, January 2006-December 2008.
- Member of the Environmental Economics Advisory Committee of the U.S. Environmental Protection Agency's Science Advisory Board, 2001-2006.
- Consultant to the Environmental Economics Advisory Committee of the U.S. Environmental Protection Agency's Science Advisory Board, 1998-2000.
- Editorial Board, Land Economics, 2001-present.
- Associate Editor, American Journal of Agricultural Economics, 2000-2004.
- Editorial Council, Journal of Environmental Economics and Management, 1992-93, 1998-2001.
- Associate Editor, Journal of Environmental Economics and Management, 1996-97.
- Member, Economics Subcommittee and Economic Perspectives Committee and consultant to Social Welfare Committee, California Comparative Risk Project, sponsored by the California Environmental Protection Agency, 1992-93.
- Member, Grants Peer Review Panels, U.S. Environmental Protection Agency (and sometimes National Science Foundation), June 1992; March 1995; May 2000; August and November 2002.
- Referee for a number of economics and other journals, funding agencies, publishers, and others.

### *Within the University of Michigan*

#### Outside the School of Natural Resources and Environment

- Faculty Associate, LSA/SNRE Program in the Environment, 2003-2008.
- Faculty Affiliate, Erb Institute for Global Sustainable Enterprise, 2005-present.
- Member, Task Team on Science, Technology, and Public Policy, 2002-2003.
- Member, Advisory Committee of LSA/SNRE Program in the Environment, 2001-2002, 2003-6.
- Member of Curriculum Implementation Committee for proposed Joint Undergraduate Program in Environmental Science/Studies, Winter 2001.
- Member, Social Sciences Review Board, Rackham Graduate School Faculty Grant and Fellowship, 1997-1999, 2003-5.
- Member, Executive Committee for the Environmental Theme Semester, fall 1996-spring 1998.

#### Within the School of Natural Resources and Environment

- Parliamentarian, 2004-2007.
- Interim Associate Dean, January-June 2004.
- Member of Executive Committee, 2000-2002.
- Member of Corporate Environmental Management Program Executive Committee, 2001-2002.
- Liaison to the Corporate Environmental Management Program, 1997-2002.
- Member, Search Committee for Quantitative Ecologist positions, 1998-99.
- Member, Environmental Justice subcommittee of the Strategic Planning process, winter 1997.
- Member, Undergraduate program review subcommittee of the Resource Policy and Behavior Concentration, fall 1996.

### *Within the University of California at Davis*

#### Campuswide

- Member, Committee on Undergraduate Scholarships, Honors, and Prizes, 1993-95.

#### College of Agricultural and Environmental Sciences

- Member, Courses and Majors Committee, 1995-96.

Member, search committee, Environmental and Resource Policy faculty position in the Division of Environmental Studies, 1994-95.

Member, search committee, Associate Dean for Undergraduate Academic Programs, 1993.

Member, Science and Society Committee in Charge, 1993-96.

Member, Teaching Workgroup of the College planning effort, Summer 1992.

Member, Undergraduate Education Committee, 1991-93, with special responsibilities for honors awards.

Member (1989-90) and Chair (1990-91), College Honors Committee.

Guest lecturer for Enrichment Program for Economics and Management-Related Majors (EPEMM), 1990 and 1991.

#### Department of Agricultural Economics

Member, search committee, environmental/resource economist position, 1995-96.

Alternate delegate to the Representative Assembly of the Academic Senate, 1995-96.

Undergraduate Advisor and Member, Undergraduate Advisory Committee, 1989-96.

Reviewer for Quantitative Analysis Examination, 1994.

Outstanding Thesis Awards Committee, 1992.

Holiday Lunch Organizing Committee, 1992.

#### **HONORS:**

Outstanding Undergraduate Advisor, Department of Agricultural Economics, 1993-94.

Berkeley Fellowship for Graduate Study, University of California at Berkeley, 1984-87.

University Fellowship, Washington University, 1978-79.

National Merit Scholar, 1974-75.

#### **PROFESSIONAL AFFILIATIONS:**

American Agricultural Economics Association

American Economic Association

Association of Environmental and Resource Economists

Committee on Women in Agricultural Economics