

# Joel Ann Todd

Joel Ann Todd has been involved in green buildings and sustainability issues for more than 15 years. She worked on energy conservation projects in the 1970s and began her work on green buildings in 1989, directing preparation of materials reports for the American Institute of Architects' *Environmental Resource Guide*. She has worked with the U.S. Green Building Council since its early days, as a consultant from 1997-1999, and as a member and Vice Chair of TSAC from 2001 to the present.

## HIGHLIGHTS OF RELEVANT EXPERIENCE

### **Support to Implementation of the LEED Building Rating System, U.S. Green Building Council:**

- **Vice Chair, LEED Steering Committee.** Assist Chair in organizing and leading meetings and activities of LEED Steering Committee.
- **Vice Chair, Technical and Scientific Advisory Committee.** Includes serving as alternative representative to the LEED Steering Committee and LEED Management SubCommittee. Worked with Task Groups on HCFCs and PVC. Coordinated TSAC reviews of LEED-EB, LEED-CI, LEED-NC.
- **Steering Committee, LEED Version 3/2.1 (2000-2002).** Served on the initial Steering Committee for the development of LEED Version 3.0 that established TAGs and evolved into LEED 2.1. Participated in Wingspread meeting to coordinate LEED products.
- **LEED Product Peer Reviews.** Participated in peer review meetings at Pocantico for LEED 2.0 and LEED-CI.
- **Support to LEED Version 1.0.** As part of a contractor team, participated in preparation of initial design assistance manual, evaluation of barriers to implementation of LEED 1.0, marketing plan and training plan.

### **Sustainable Design Research and Reports**

- **Materials Reports for the *Environmental Resource Guide*, American Institute of Architects and Environmental Protection Agency:** Conducted research on embodied energy, waste generated, indoor air quality effects, and other environmental aspects of more than 30 building materials.
- **Greening Federal Facilities, National Renewable Energy Laboratory, Department of Energy:** Participated in a team to update and rewrite the *Greening Federal Facilities Guide* and wrote several chapters. Also assessed the progress and results of several previous greening activities at the White House, Pentagon, and Department of Energy and prepared reports.
- **Greening Charrette Handbook, National Renewable Energy Laboratory, Department of Energy:** Co-authored *Greening Charrette Handbook*, now available on NREL Web site, to assist owners and architects in planning and conducting greening charrettes.
- **High Performance Buildings Program, National Renewable Energy Laboratory, Department of Energy:** Conducted research on metrics used by Federal Agencies to assess operational performance of buildings for the High Performance Buildings Metrics project and the Federal Facility Performance Evaluation work group. Contributed to the High Performance Buildings Case Study Database.
- **Planning Guide and Web Site for Sustainability, National Park Service:** Developing a guide and Web site to be used by national parks to plan and implement sustainability initiatives. Guide and Web site address planning, transportation, facilities design and construction, operations and maintenance, concessions, interpretation and education, and procurement.
- **Making the Business Case for Sustainable Design in Federal Facilities, Federal Energy Management Program, Department of Energy.** Participated in design and facilitation of a

workshop to identify information needed to “make the case” for sustainable design in Federal facilities. Prepared case studies of Federal agency efforts.

**Green Building Challenge ‘98, 2000, 2002, 2005, Department of Energy and General Services**

**Administration:** Serve on U.S. team for this international effort to develop and test an assessment framework for evaluating environmental performance of buildings. Participate in International Framework Committee and currently chair its work group on performance metrics.

**Greening Workshops and Charrettes**

- **Centers for Environmental Innovation, National Park Service and Environmental Protection Agency:** Developed a workshop and charrette on greening national parks, covering master planning, transportation, facilities, operations and maintenance, concessions, interpretation, and procurement. Conducted workshop and charrette at Big Cypress National Preserve, Boston Historic Park, Bandelier National Monument, Point Reyes National Seashore, C&O Canal Historic Park, the Grand Canyon, and currently planning events at Homestead National Monument and Canaveral National Seashore.
- **Sustainable Design Workshops, National Park Service.** Developed a training program on sustainable design and construction for National Park Service managers. Presented workshop for managers and staff at the Denver Service Center in Lakewood, CO, and for managers of regional offices and selected parks in Atlanta, GA.
- **Additional Charrettes and Workshops.** Conducted training workshops and charrettes for numerous clients; examples include the Salt Lake City Red Cross, DC Developing Families Center, University of North Carolina at Asheville, the Navy’s Mid-South base in Millington, TN and a joint Army, Navy, and Air Force program.
- **Workshop on Environmentally Preferable Purchasing/Interior Building Materials, Environmental Protection Agency:** Developed and delivered a half-day workshop on environmentally-preferable purchasing to support the interior renovation of the Pentagon. The workshop addressed the benefits of environmentally preferable purchasing and specific tools and approaches for evaluating environmental preferability.

**Environmental Life Cycle Assessment**

- **Design of LCA Methodology for the *Environmental Resource Guide*.** Developed streamlined life-cycle assessment inventory, impact, and improvement methodologies for use in ERG research. Prepared a report on the methodology published by EPA.
- **Training Workshop on Environmental Life Cycle Assessment, Office of Pollution Prevention and Toxics, EPA:** Served as one of four trainers for a one-day workshop for staff in EPA's Environmentally Preferable Products group. Presented session on the applications of environmental life cycle assessment to buildings and building materials.
- **Society of Environmental Toxicology and Chemistry:** Served as one of five trainers for short course on LCA presented in conjunction with the SETAC annual meeting. Co-chaired work group on Streamlining and co-authored final report. Participated in work group on impact assessment and co-authored final report.

**EMPLOYMENT**

Independent Consultant	2001- present
The Scientific Consulting Group, Inc., Vice President	1991 - 2001
Technical Resources, Inc., Deputy Division Director	1987 - 1991
Mandex, Inc., Senior Associate	1984 - 1987
REAP Associates, Inc., Vice President	1975 - 1984
Metcor, Inc., Director of Program Development	1974 - 1975

## **EDUCATION**

Ohio State University, M.A., Political Science (1974)

Miami University, B.A., Political Science (1968), *magna cum laude*, Phi Beta Kappa

## **SELECTED PUBLICATIONS**

### ***Peer-Reviewed Books, Journal Articles, Conference Proceedings***

Lindsey, G., J.A. Todd, S. Hayter, *A Handbook for Planning and Conducting Charrettes for High Performance Projects*, National Renewable Energy Laboratory (NREL/BK-710-33425), August 2003.

Todd, J.A., D. Crawley, G. Lindsey, S. Geissler, "Comparative Assessment of Environmental Performance Tools and the Role of the Green Building Challenge," *Building Research and Information*, Volume 29, Number 5, September/October 2001.

J.A. Todd, "Current Federal Regulations," "Economic and Environmental Analysis," "Green Procurement," "Alternative Financing," "Leased Buildings," and "Measuring and Monitoring Benefits" chapters in A. Wilson, ed., *Greening Federal Facilities, Second Edition*, U.S. Department of Energy (DOE/GO-102001-1165), May 2001.

D. Crawley, J.A. Todd, and G. Lindsey, "The Challenge of Green Buildings: Defining and Achieving Indicators of Sustainability," *Forum 2001 – Solar Energy: The Power to Choose*, Annual Meeting of the American Solar Energy Society, Washington, DC April 2001.

Cole, R.J., G. Lindsey, and J.A. Todd, "Assessing Life Cycles: Shifting from Green to Sustainable Design," *Proceedings, Sustainable Building 2000*, Aeneas Technical Publishers, The Netherlands, 2000.

Todd, J.A. and S. Geissler, "Regional and Cultural Issues in Environmental Performance Assessment for Buildings," *Building Research and Information*, Volume 27, Numbers 4/5, July-October 1999.

Todd, J.A., "Environmental Impact in a Life-cycle Framework: Practical Approaches for Decision Making," in S.K. Sikdar and U. Diwekar (eds.) *Tools and Methods for Pollution Prevention*, Kluwer Academic Publishers, The Netherlands, 1999.

Todd, J.A. and M.A. Curran, eds, *Streamlined Life-Cycle Assessment: A Final Report from the SETAC North America Streamlined LCA Work Group*, Pensacola, FL: Society for Environmental Toxicology and Chemistry, July 1999.

Todd, J.A. "Environmental Life Cycle Assessment," in D. Watson, M.J. Crosbie, and J. Callender, eds., *Time Saver Standards: Architectural Fundamentals and Design Data*, 7<sup>th</sup> Edition, McGraw-Hill, 1997.

Barnthouse, L.; Fava, J.; Humphreys, K.; Hunt, R.; Laibson, L.; Noessen, S.; Owens, J.; Todd, J.; Vigon, B.; Weitz, K.; Young, J.; eds., *Life-Cycle Impact Assessment: the State-of-the-Art*, Report of the SETAC Life-cycle Assessment Impact Assessment Workgroup, SETAC LCA Advisory Group. Pensacola, Florida: Society of Environmental Toxicology and Chemistry. 1997.

Todd, J.A., "It's Not Easy Buying Green," *Government Procurement*, August 1997.

Todd, J.A. "The Application of LCA Concepts to Environmental Procurement/Environmental Shopping," 97-WP86.04, *Proceedings of the Air and Waste Management Association Annual Meeting*, 1997.

Weitz, K.A., J.A. Todd, and M.J. Malkin. "Streamlining Life-Cycle Assessment: Considerations and a Report on the State of Practice," *The International Journal of Life Cycle Assessment*, 1996.

Todd, J.A. and J.B. White. "Toward Rational Consideration of the Relative Importance of Environmental Life Cycle Criteria: Two Proposed Approaches," *Proceedings of the CIB TG-8 Invitational Workshop, Linking and Prioritizing Environmental Criteria*, Toronto, November 15-16, 1995.

Todd, J.A. "Pollution Prevention in Architecture: The Application of Life Cycle Assessment to Building Materials," *Proceedings of the Annual Air Force Pollution Prevention Conference*, 1993.

### **SELECTED PRESENTATIONS**

"Greening Charrettes: Lessons Learned from the Federal Sector," with Julie Shannon, Shawn Norton, Dru Crawley, Gail Lindsey, EnvironDesign, May 1, 2003, Washington, DC.

"What's Next in Green Building Rating Systems: What You Need to Know to Stay Ahead of the Pack" with Gail Lindsey and Dru Crawley, American Institute of Architects Annual Convention, Charlotte, NC, May 2002.

"LCA Warts and All: What You Need to Know and How to Find it Out," Session Chair, USGBC Summit, Tuscon, AZ, August 2001.

"The International Green Building Challenge: Enhancing Your Worth in the Global Marketplace" with Gail Lindsey and Dru Crawley, American Institute of Architects Annual Convention, Denver, CO, May 2001.

"LCA History and Background: Life Cycle Assessment Tools for Determining Environmental Performance of Buildings," American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), Atlanta, GA, January 2001.

"Greening the Red, White, and Blue" with Gail Lindsey and Greg Franta, American Institute of Architects Annual Convention, Philadelphia, PA, May 2000.

"Comparative Assessment of Green Building Challenge 2000 and Leadership for Energy and Environmental Design: Lessons Learned for International and National Systems," Sustainable Building 2000, The Netherlands, 2000.

"Green Building Rating Systems: What You Need to Know" with Gail Lindsey and Marc Richmond-Powers, American Institute of Architects Annual Convention, Dallas, TX, May 1999.

"Going Green for Fun and Profit: Tools and Resources for Designers," with Gail Lindsey and Nadav Malin, American Institute of Architects Annual Convention, San Francisco, California, May 1998.