

Curriculum Vitae

Michael Robert Thomas
517-332-2986; 332-4369 (fax)
thoma180@msu.edu

Education

- Ph.D. 1980 Michigan State University, College of Agriculture and Natural Resources,
Department of Resource Development
Major Professor: Ronald L. Shelton
Dissertation: *A Conceptual Framework for Ecosystem Management*
Degree Program Fields: Land and Water Resource Management, Land Use Policy and
Planning, Regional and Urban Planning, Environmental Geomorphology
- M.S. 1976 Michigan State University, College of Agriculture and Natural Resources,
Department of Fisheries and Wildlife - Environmental Science and Education
MS Paper: *The Role of Environmental Education in Regional Land-Use Planning*
- B.S. 1970 Michigan State University, College of Natural Science
Department of Zoology
Biological Sciences Major, Geology and Chemistry Minors
- Diploma 1966 Fenton High School, Fenton, Michigan
College Prep; National Honor Society; Michigan Higher Education Scholarship;
Michigan Technological University Board of Governors Scholarship

Professional Certifications, Experience, and Training

Dr. Michael R. Thomas is an experienced, senior-level program management professional in strategic planning and positioning, needs and trend analyses, and executive direction. Dr. Thomas has successfully completed complex, multi-disciplinary projects for public- and private sector clients involving multi-million dollar budgets and large staffing contingents. He has an excellent record of project development and funding in the creation of innovative and cost-effective solutions to meet client needs and bringing projects in on time and within budget. He is highly skilled in oral and written communication and computer productivity.

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| Project Manager Certification (CPM) (1988) | Quality Assurance (1986) |
| Project Management Systems (1993) | Professional/Technical Writing (1986) |
| Time Management (1987) | Communicating Under Pressure (1989) |
| Ecological Risk Assessment (1987; 1997) | Technical Management Procedures (1993) |
| Good Laboratory Practices, Health and Safety (1986) | Total Quality Management (1986) |
| ISO 14000 Environmental Management Systems (1998) | MSU Extension Citizen Planner Trainer (2001) |

Computer Applications Proficiency:

Macintosh. Microsoft Office Suite (Word, Excel, PowerPoint); Claris MacDraw, MacProject; Aldus Persuasion; HyperCard; WordPerfect; Wordstar. Sun X-Windows. Geographic Information Systems: Intergraph, ESRI; Smart Places; CommunityViz.

Technical Expertise and Research Interests

Experienced in land-use, resource economics, and energy policy development and environmental planning and management, applied research, and applications, including teaching, with practical focus on assessment of environmental, social, economic, health and risk impacts regarding the sustainable use of land and water resources and addressing multi-stakeholder environmental, technical, socioeconomic, and community health concerns.

Resource planning and management activities are strongly supported by technical expertise in terrestrial and wetland ecology; ecosystem and habitat analysis; surface water hydrology and watershed management; endangered species biology and status; sustainable regional and urban land use planning; terrain analysis; natural resource management, policy, law, and economics. Nationally recognized in the development of resource- and community-based decision support systems using computer-aided expert applications, remote sensing, and GIS applications. Regulatory compliance expertise includes NEPA/CEQ and corresponding state requirements for preparation of environmental reports and assessments; radioactive and hazardous waste management and disposal technologies under CERCLA/SARA, RCRA, and high-level and low-level radioactive waste regulations; brownfield redevelopment; and federal/state endangered species and wetlands legislation.

Program Leadership, Major Projects and Funding

Project Manager, Consulting Services for public and private utilities and land developers (Contracts \$15M+). Nuclear and fossil fuel power plants, pumped-storage reservoirs, and low-head hydropower in 15 states. Site characterization and environmental review, EIA/EIS documentation, construction and operations monitoring, permitting and regulatory compliance for power plants, pipelines, transmission corridors, and waste disposal facilities, decontamination and decommissioning plans, and development of guidelines for construction in wetlands. 1980-present.

Director and Project Manager, Consumers Energy – Michigan State University Master Research Agreement (\$1.55M). School of Planning, Design, and Construction, Michigan State University. 2012-2018.

Co-Project Manager, Health Impact Project Grant, Robert Wood Johnson Foundation and Pew Charitable Trusts (\$250K). Ingham County Health Department. 2012-2015.

Project Manager, Health Impact Assessment Toolkit, Sustainable Community Development Grant, US Housing and Urban Development (\$3M), Tri-County Regional Planning Commission. 2012-2014.

Peer Reviewer and Team Member, Networked Neighborhoods for Eco-Conservation On-Line, Great Lakes Protection Fund Grant (\$470K). Institute of Water Research, Michigan State University. 2008-2011.

Research Program Coordinator for Kellogg Foundation People and Land Phase III Program, Michigan State University (Grants \$14M). 2005-2007.

Research Leader for Phase II Kellogg Foundation People and Land Program, MSU and Jackson County Business Alliance (Grant \$176K plus \$160K local match from Consumers Energy and Jackson Community Foundation). Developing Performance Standards for Cooperative Planning in Jackson County. 2004.

Research Consultant, National Park Service, MSU Institute of Water Research (Grant \$178K). Development of a Web-accessible information system for the collection and dissemination of ecological monitoring data for six national parks/seashores in the Western Great Lakes Region. 2003-2005.

Project Manager. North Carolina Ecosystem Enhancement Program (Contract \$300K). Development of a Watershed Management/Functional Rehabilitation Model. 2002-2003.

Research and IT Applications Task Leader, USDA Forest Service, Victor Institute for Responsible Land Development and Use, MSU (Grant \$200K). Web Accessible Natural Resource Information/Decision Support System. Rural Development through the Forestry Program. 2001-2003.

Project Manager, US Environmental Protection Agency, Great Lakes National Program Office, Michigan Natural Features Inventory and MSU Extension collaboration (Grant \$78K). Integration of natural features data (type and extensiveness of data, data delivery mechanisms, etc.) into local land use decision making. 2002-2003.

Project Manager. Michigan Community Governments and MSU Extension (Contracts \$150K+). Research and development of weighted, multi-attribute, site prioritization and selection process for brownfield redevelopment, open space preservation, local and regional planning, and related resource management applications. The resultant systems are being implemented and tested in several Michigan communities. 2001-2005.

Research and Technical Director, Enterprise Group of Jackson, Inc., Consumers Energy Company, and MSU Extension collaboration (Grant \$150K). Application of Smart Places GIS in brownfields redevelopment and comprehensive land-use planning projects in Jackson County, Michigan. 1999-2004.

Research Leader. Michigan Applied Public Policy Research Program (Grant \$71K). Design and implementation of GIS-based decision support systems using Smart Places for land-use planning, brownfields redevelopment, and risk assessment in Jackson, Lansing, Saginaw, and Detroit, Michigan. 1998-1999.

Co-Principal Investigator. US Environmental Protection Agency, Great Lakes National Program Office and CIESIN (Cooperative Agreement \$100K). Incorporation of data and research results from Lake Michigan Mass-Balance Study into Great Lakes Regional Environmental Information System. 1997.

Co-Principal Investigator. US Department of Defense, CIESIN (Grant \$1.0M). Development of on-line information systems for several base realignment and closure programs in Alaska, California, and Hawaii. 1996-1997.

Co-Principal Investigator. US Environmental Protection Agency, CIESIN (Cooperative Agreement \$4.5M). Development of Web-based regional environmental information systems for Great Lakes, US-Mexico Border, Chesapeake Bay, and Navajo Nation; land transformation model at Michigan State University; plan for environmental data integration center; database modeling; receiving station for SeaWiFS satellite. 1994-1997.

Co-Principal Investigator. US Agency for Toxic Substance and Disease Registry, USEPA, CIESIN (Cooperative Agreement \$150K). Development of Web-based public health information systems for site remediation projects. 1995-1997.

Co-Principal Investigator. National Aeronautics and Space Administration Grant (\$27M). Development of program plan and proposal for the creation of the Consortium for International Earth Science Information Network (CIESIN), the Socioeconomic Data and Applications Center, and the Global Change Research Information Office. 1991-1997.

Senior Ecologist and Task Leader. States of Michigan, Illinois, Connecticut (Contracts \$2M+). Site screening and characterization planning for low-level radioactive waste disposal facilities. Implementation of public review and participation programs. 1989-1991.

Senior Ecologist and Task Leader. US Department of Energy (Contract \$180M+). NEPA/CERCLA/RCRA compliance for remediation of federal weapons facilities in South Carolina, Texas, Washington, Tennessee; siting of high-level radioactive waste and mixed waste disposal and monitored retrieval facilities; EIS for siting superconducting supercollider, uranium mill tailings disposal, and forest/wetlands management plans. 1981-1989.

Senior Consultant. Cities of Denver and Scottsdale (Contracts \$100K+). Provided land-use planning and ecosystem management input in the development and use of Smart Places applications for Stapleton Airport redevelopment and McDowell Mountains acquisition plan. 1994-1997.

Senior Ecologist and Task Leader. US Forest Service, CIESIN and MSU (Contract \$120K+). Draft and review of EIAs of plans for forest management and wilderness/roadless areas in several Western states. Development of guidelines for adaptive forest management approaches in Oregon. Supported design of an on-line, remotely accessible public participation program in Colorado. 1984-1989; 1994.

Associate Director. US Department of Defense, CIESIN (Grant \$1.0M). Development of a publicly accessible GIS and information system to support military base closure and realignment programs in Hawaii, Florida, California, and Alaska. 1996-1997.

Co-Project Manager. Michigan Department of Transportation, MSU (Grant \$1.5M). EIA and NEPA documentation for construction projects, highway feasibility studies, and development of an ecologically sensitive construction policy and guidelines. 1978, 1999.

Employment History

Associate Professor, Michigan State University, School of Planning, Design, and Construction, East Lansing, Michigan—2012 to Present and Program Coordinator, Michigan State University, Midland Research Institute for Value Chain Creation, Midland, Michigan—2016 to Present.

Partner and Vice President, Decision Support Professionals, Inc., Kill Devil Hills, NC and Okemos, MI—1997-2012.

Owner, Arts & Interiors, Okemos, MI—1998-2012.

Owner, mrt Environmental Management Group, Okemos, MI—1997-2012.

Consultant, Environmental Resources Management, Inc., Holland, MI—2007-2009.

Land Resource Management Specialist, Michigan State University, Department of Community, Agriculture, Recreation and Resource Studies, East Lansing, Michigan—2001 to 2005.

Research Program Coordinator, Land Policy Institute, Office of the John A. Hannah Distinguished Professor in Land Policy at Michigan State University—2004-2005.

Community Economic Development and Land Use Educator, Michigan State University Extension—2003-2004.

Assistant Professor (Visiting). Michigan State University, Department of Resource Development, East Lansing, Michigan—1998 to 2001.

Consultant, Clayton Environmental Services, Inc., Novi, MI—2001.

Senior Environmental Scientist (Short-Term Appointee), Argonne National Laboratory, Energy Systems Division, Argonne, Illinois—1997-2000.

Adjunct Assistant Professor. Michigan State University, Department of Resource Development, East Lansing, Michigan—1990 to 1998.

Associate Director, Information Resources and Technology Division. Consortium for International Earth Science Information Network (CIESIN), University Center, Michigan—1997.

Associate Director, Government and International Programs Division. Consortium for International Earth Science Information Network (CIESIN), University Center, Michigan—1993 to 1997.

Program and Strategic Planning Manager, Consortium for International Earth Science Information Network (CIESIN), University Center, Michigan—1991 to 1993.

Biology Instructor. Baker College of Owosso, Michigan—1997.

Environmental Programs Manager. Battelle Memorial Institute, Energy Systems Group, Lansing, Michigan—1989 to 1991.

Projects Manager. Battelle Memorial Institute, Columbus Division, Environmental Technology and Assessment Department, Columbus, Ohio—1987 to 1989.

Section Manager. Battelle Memorial Institute, Project Management Division, Environmental and Radiological Compliance Section, Columbus, Ohio—1987.

Senior Environmental Project Manager. Battelle Memorial Institute, Project Management Division, Environmental Assessment Section, Columbus, Ohio—1984 to 1987.

Senior Environmental Analyst/Ecologist; Project Manager. NUS Corporation, Pittsburgh, Pennsylvania and Gaithersburg, Maryland—1980 to 1984.

Environmental Consultant. Lansing, Michigan—1980.

Graduate Research Assistant. Michigan State University, Department of Resource Development, East Lansing, Michigan—1977 to 1980.

Graduate Teaching Assistant. Michigan State University, Science and Mathematics Teaching Center, East Lansing, Michigan—1975 to 1977.

Operations Specialist. Operations-Intelligence Division, U.S. Navy, USS Dale (CG-19)—1970 to 1974.

Crew Chief/Surveyor. Advance Surveys, Fenton, Michigan—1969 to 1970.

Student Aide. Michigan State University, Science and Mathematics Teaching Center, Work-Study Program, East Lansing, Michigan —1969 to 1970.

Courses Taught

Michigan State University:

Resource Development 415, Introduction to Impact Assessment. 1995-1999; 2004.

Resource Development 829, Assessment Methods (Environmental); Project Management. 1990-1992.

Resource Development 829, Assessment Methods; Global Modeling. 1994.

General Biology (Teaching Assistant); Laboratory and Recitation. 1976-1978.

Baker College of Owosso: ENV-101, Environmental Biology. 1997.

Consortium for International Earth Science Information Network: Project Management Systems. 1996-1997.

Professional Memberships

Michigan Association of Environmental Professionals National Association of Environmental Professionals

Michigan State University Area of Expertise Teams

Land Use, Community Economic Development,

Tri-County Land Use and Health Resources Team

MSU Urban Collaborators

Association of State Wetland Managers

Michigan Association of Planning

International Association for Impact Assessment

Society for Ecological Restoration

Editorial Review Boards and Peer Review

Editorial Advisory Board member, *Environmental Practice*; technical/peer reviewer for *Impact Assessment*, *Journal of Environmental Planning and Management*, *Journal of Environmental Assessment Policy and Management*, *Transactions in GIS*, *Environmental Management*.

Abstract reviewer and track chair (Land and Water Management, Training and Higher Education; GIS-based Decision Support Systems) for 2000-2005 Conferences of the National Association of Environmental Professionals.

Committee Appointments

Tri-County (MI) Land Use and Health Resource Team—1999-present.

LUHRT Advisory Committee—2013-present.

Tri-County (MI) Community Health Assessment Facilitation Team—2006-present.

Tri-County (MI) Green Infrastructure Advisory Board—2007-present.

Tri-County (MI) Food Systems Working Group—2009-present.

Governor's Council on Physical Fitness, Promoting Active Communities—2004-2006.

Michigan Land Use Summit, Conference Chair—2002-2005.

Environmental Commission, Meridian Township, Michigan—1999-2004; 2011-2013.

Land Preservation Advisory Board, Meridian Township, Michigan—2001-2010.

GIS Coordination and Strategic Planning Committees, Jackson County, Michigan—2002-2004.

National Association of Environmental Professionals (NAEP):

Conference Committee—1999-2005.

Training & Higher Education Working Group—1999-present

International Committee—1994-2007

Internet Committee—1995-1999

NEPA-ISO Working Group—1996-present.

National Academy of Science Committee to review U.S. Department of Energy procedures on qualification and procurement of contractors at federal energy and weapons facilities—1996.

Board of Associates, Michigan State University Museum—1997-2004.

Presidential Search Committee, International Association for Impact Assessment—1983.

Awards and Recognition

2010, 2014 Resolution of Appreciation, Meridian Township, Michigan.

2005 NAEP Environmental Excellence Award: Planning Category.

2005 Finalist, Community Governance Award, J.F. Kennedy School of Government, Harvard University.

2004 Orton Foundation Innovation Award Watershed Management/Functional Rehabilitation Model.

2003 Local Land Use Heroes Award. Jackson County Multi-Jurisdictional Land Use Plan), Michigan Environmental Council and Americana Foundation.

2001 Innovative Initiatives Award. Jackson County Multi-Jurisdictional Land Use Plan), U.S. Department of Housing and Urban Development.

CIESIN award for outstanding contributions in program development, 1993, 1994, 1995, 1996.

Battelle Reward and Recognition Program.

Certificate of Appreciation, U.S. Department of Energy.

Scholarships, Michigan Higher Education Assistance Authority; Board of Governors, Michigan Technological University.

Refereed Journals

Thomas, M., Allan, J., Matta, J., and Asher, J. (2005) Applications of rapid environmental assessment and co-occurrence analysis in identifying, managing, and restoring wetlands. *Environmental Practice*. 7(3): 186-197.

Schultink, G., Memon, A., and Thomas, M. (2005) *Land Use Planning and Growth Management: Comparative Policy Perspectives on Urban Sprawl and Future Open Space Preservation*. Michigan Agricultural Experiment Station Research Bulletin No. 587, Michigan State University, East Lansing, Michigan. May 2005.

Thomas, M. (2004) *Brownfields and Michigan Communities: Information Resources and Tools to Assist Redevelopment Decisions*. Michigan Agricultural Experiment Station Research Bulletin No. 584, Michigan State University, East Lansing, Michigan. March 2004.

Thomas, M. (2003) The use of ecologically based screening criteria in a community-sponsored open space preservation program. *Journal of Environmental Planning and Management*. 46(5), 691-714, September 2003.

Thomas, M. (2003) Brownfield redevelopment: information issues and the affected public. *Environmental Practice*. 5(1): 62-68.

Sands, G. and M. Thomas. (2003) Chapter five, land use, In: *Michigan at the Millennium: A Benchmark and Analysis of its Fiscal and Economic Structure*. Charles L. Ballard, Paul N. Courant, Douglas C. Drake, Ronald C. Fisher and Elizabeth R. Gerber, eds. East Lansing, MI: Michigan State University Press.

Thomas, M. (2002) A weighted, multi-attribute, site prioritization and selection process for brownfield redevelopment. *Environmental Practice*. 4(2): 95-106.

Thomas, M. (2002) A GIS-based decision support system for brownfield redevelopment. *Landscape and Urban Planning*. 58:1, pp. 3-23. Elsevier Science, Amsterdam, The Netherlands.

Thomas, M. (1993) CIESIN: Providing access to global environmental change data and information, *Impact Assessment*, International Association for Impact Assessment, Volume 11, No. 3, Fall 1993.

Published Websites

Health Impact Assessment Toolkit/Mapping and Impact Assessment Tool (<http://hiatoolkit.weebly.com>). Mid-Michigan Health-In-All Project. Michigan State University School of Planning, Design, and Construction and Institute of Water Research.

Technically Reviewed Project Reports and Publications

Thomas, M. and J. Mitra (2016, in preparation) *Research and Testing of Utility-Scale Battery Storage Technologies and Applications in Support of Power Generation and Distribution* Michigan State University School of Planning, Design, and Construction and Department of Electrical Engineering and Computer Sciences.

Thomas, M., J. Mitra, and K. Rose (2015) *Analysis of the Impacts of Increased Interconnections of Renewable Generation Resources Across the Midcontinent Independent System Operator's (MISO) Zone 7 Footprint in Michigan's Lower Peninsula*. Engineering and Market Analysis. Michigan State University School of Planning, Design, and Construction, Department of Electrical Engineering and Computer Sciences, and Institute for Public Utilities.

Thomas, M. (2015) *Health Impact Assessment of the Urban and Rural Service Management Policy*. Mid-Michigan Health In All Project. Michigan State University School of Planning, Design, and Construction.

Thomas, M., J. Mitra, and K. Rose (2014) *Analysis of the Impacts of Increased Interconnections of Renewable Generation Resources Across the Midcontinent Independent System Operator's (MISO) Zone 7 Footprint in Michigan's Lower Peninsula*. Preliminary Impact Assessment Report. Michigan State University School of Planning, Design, and Construction, Department of Electrical Engineering and Computer Sciences, and Institute for Public Utilities.

Safferman, S., Binkley, D., Smith, J., and M. Thomas (2014) *Expand and Verify ADDIT and Screen Prospective AD Sites Identified in Phase 1 as part of the Phase 2: Integration of Consumers Energy Transmission and Energy Demand Data with the Michigan Waste Biomass Inventory to Support Renewable Energy Development from Anaerobic Digestion* Phase 2 Report. Michigan State University Department of Biosystems and Agricultural Engineering and School of Planning, Design, and Construction.

Safferman, S., Binkley, D., Smith, J., and M. Thomas (2013) *Inventory and Screening Potential of Anaerobic Digester-Sourced Power Projects in Michigan: Demonstration of the feasibility of Michigan Biomass Inventory (MBI), Screening Process, and Cost/Benefit Analysis to Identify and Develop Biomass Sourced Renewable Energy Projects*. Phase 1A Report. Michigan State University Department of Biosystems and Agricultural Engineering and School of Planning, Design, and Construction.

Safferman, S. and M. Thomas (2013) *Investigation of the Integration of Consumers Energy Transmission and Energy Demand Data with the Michigan Waste Biomass Inventory to Support Renewable Energy*. Phase 1A Report. Michigan State University Department of Biosystems and Agricultural Engineering and School of Planning, Design, and Construction.

Thomas, M. (2012) *The Role of Anaerobic Digester to Power Generation in Consumer Energy Company's Renewable Energy Strategy*. Consumers Energy Company, Jackson, MI.

Thomas, M. (2012). *Red Cedar Glen Preserve Land Management Plan: Stream Restoration Plan*. Charter Township of Meridian, Michigan, Land Preservation Advisory Board. Okemos, MI.

Thomas, M., Thomas, C., and Du, J. (2008) *Spatial and Geostatistical Analysis of Commercial and Industrial Customer Behavior and Trends*. Consumers Energy Company, Jackson, MI.

Community Health Assessment Facilitation Committee (2008) *Report on the 2007-2008 Building Healthy Communities Dialogs*. Ingham County Department of Health, Lansing, MI, October 2008.

Thomas, M. and C. Otto (2007) *Analysis of Wind Energy Ordinances and Rapid Assessment of Selected Michigan Communities for a Potential Wind Energy Facility*. Phase 1 Report, Consumers Energy Company, Jackson, MI.

Thomas, M., et al. (2007) *Campbell Plant Vessel Coal Delivery Feasibility Report*. Environmental Resources Management Report to Consumers Energy Company, Jackson, MI.

Thomas, M. (2007) *Summary of Consumers Energy Company Customer Behavior Under Michigan's Electricity Restructuring and Retail Open Access Policies*. Next Generation ROA Report No. 1, Consumers Energy Company, Jackson, MI.

Thomas, M. (2007) *Commercial and Industrial Customer Behavior and Preferences Under Consumers Energy Company's Customer Choice Program*. Next Generation ROA Report No. 2, Consumers Energy Company, Jackson, MI.

Thomas, M. and Levine, R. (2007) *Modeling Customer Choice in Deregulated Electricity Markets: A Systems Approach to the Dynamics of Deregulation and Open Access as It Affects Customer Behavior*. Next Generation ROA Report No. 3, Consumers Energy Company, Jackson, MI.

Thomas, M. (2007) *Meridian Township's Land Preservation Program*. Charter Township of Meridian, MI.

Thomas, M. (2006) *Customer Growth Projections and Trends in Consumers Energy Company Service Territory, 2006 to 2015*. Report to Consumers Energy Company, Jackson, MI.

Thomas, M. (2006) *Current Trends in Residential Air Conditioning Use and Market Saturation to Project Energy Needs from 2006 to 2030*. Report to Consumers Energy Company, Jackson, MI.

Henne, M. and Thomas, M. (2004) *Hydrology Study and Environmental Assessment for the Installation of a Natural Gas Pipeline through the Big Valley Preserve Using Horizontal Directional Drilling and Boring Techniques*. Consumers Energy Company, Jackson, MI.

Thomas, M. and Northrup, G. (2004) *Developing Standards for Cooperative Regional Planning*. Final Report to Kellogg Foundation, People and Land Program. The Greater Jackson Business and Community Alliance, Jackson, MI.

Wood, G., Thomas, M., Furr, H., and Asher, J. (2003). Pasquotank River Watershed Management and Functional Rehabilitation Model. Decision Support Professionals Report to the North Carolina Ecosystem Enhancement Program. Raleigh, NC.

Felker, S., Thomas, M. and Townsend, C. (2003) Mixed Income and Affordable Housing: An Overview of State-of-the-Practice and Policy Implications for Michigan. Urban Collaborators Research Project, Michigan State University, East Lansing, MI. September 2003.

Thomas, M., Schools, E., Enander, H. and Paskus, J. (2003) Incorporating Natural Features Data into Land Use Planning. U.S. Environmental Protection Agency, Great Lakes National Program Office, Chicago, IL.

Davis, P., et al. (2003) Web Accessible Natural Resource Information/Decision Support System. U.S. Department of Agriculture Forest Service, Rural Development Through Forestry Project. Michigan State University, East Lansing, MI. July 2003.

Thomas, M. (2002) Oakland Pipeline Route Analysis, Part 1: Review of Proposed Alternative Alignments From Previously Filed Documents; Part 2: Updated Evaluation and Screening of Route Alternatives. Consumers Energy Company, Jackson, MI.

Thomas, M. (2001) The Jackson County Brownfield Site Prioritization Weighting and Ranking Model: A Weighted, Multi-Attribute, Site Prioritization and Selection Process for Brownfield Redevelopment. Michigan State University, East Lansing, MI. July 2001.

Thomas, M., Fridgen, C. and Asher, J. (1999) Urban Land Revitalization and Sustainable Development: A Prototype Brownfields Redevelopment Decision Support System. *Final Report: Michigan Applied Public Policy Research Program Grant 11-6163*. Michigan State University, East Lansing, MI.

Thomas, M. (1999) A New Land Use Project at Michigan State University: Building A Prototype Brownfields Redevelopment Decision Support System In: *Community News and Views*, a publication of the Michigan Society of Planning Officials.

Pijanowski, B., Long, D., Edens, T., Gage, S., and Thomas, M. (1995) *A Land Transformation Model*, U.S. Environmental Protection Agency, Research Triangle Park, NC.

Thomas, M., Roller, N. and Schanerberger, W. (1995) *Plan for an Environmental Data Integration Network*, U.S. Environmental Protection Agency, Research Triangle Park, NC.

Thomas, M. (1993) *CIESIN: Facilitating Access to, Use, and Understanding of Global Change Information Worldwide, Special Report to Congress on 1992-1993 Activities and 1994 Budget Alternatives*, Consortium for International Earth Science Information Network, University Center, MI.

Thomas, M. (1992) *Earth Science Information: Planning for the Integration and Use of Global Change Information, Special Report to Congress on 1991-1992 Activities and 1993-1994 Budget Alternatives*. Consortium for International Earth Science Information Network, University Center, MI.

Thomas, M. (1992) *Organizational Responsibilities and Activities for the 1992 NASA Program: A Report to the Congress of the United States*. Consortium for International Earth Science Information Network, University Center, MI.

Thomas, M. (1991) *Statutory Compliance Analysis for the Michigan Radioactive Waste Disposal Program*, technical planning document prepared for the Michigan Low-Level Radioactive Waste Authority, Lansing, MI.

Thomas, M. (1991) *Plan to Conduct a Detailed Analysis of Potentially Suitable Areas*, technical planning document prepared for the Michigan Low-Level Radioactive Waste Authority, Lansing, Michigan.

Thomas, M. (1990) *Candidate Area Decision Report*, technical decision document prepared for the Michigan Low-Level Radioactive Waste Authority, Lansing, MI.

Thomas, M. (1990) *Candidate Area Screening and Candidate Site Selection Methodology*, technical planning document prepared for the Michigan Low-Level Radioactive Waste Authority, Lansing, MI.

Thomas, M. (1990) *Land Use in the Isolation Zone*, prepared for the Michigan Low-Level Radioactive Waste Authority, Lansing, MI.

Thomas, M. (1989) *Candidate Area Information Evaluation Process*, prepared for the Michigan Low-Level Radioactive Waste Authority, Lansing, MI.

McGinnis, J., Root, R., and Thomas, M. (1988) *General Environmental Study Plan*, prepared for the Illinois Department of Nuclear Safety, Springfield, IL.

McGinnis, J., Root, R., and Thomas, M. (1988) *Site Identification Plan*, prepared for the Illinois Department of Nuclear Safety, Springfield, IL.

Tolle, D. and Thomas, M. (1987) *Information and Data Requirements for Ecosystem Issues Pertaining to U.S. Department of Energy Decommissioning and Restoration Programs*. Battelle Memorial Institute, Columbus, OH.

Ferrante, J. and Thomas, M. (1986) *Environmental Monitoring and Mitigation Plan*, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH.

Holderman, R. and Thomas, M. (1986) *Environmental Impact Assessment Methods*, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH.

Thomas, M. and Roberts, C. (1986) *Environmental Requirements of the Documentation Supporting Development and Operation of a High-Level Radioactive Waste Repository*, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH.

Holderman, J., Schweitzer, E., and Thomas, M. (1985) *A Programmatic Impact Assessment and Standards Manual*, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH.

Thomas, M. (1981) *Terrestrial Ecological Monitoring at the Perry Nuclear Power Plant*, NUS Corporation, Pittsburgh, PA.

Thomas, M. and Shema, R. (1981) *Characterization of Wildlife, Fish, and Their Habitats for Seven Mine Sites in Eastern Ohio*, NUS Corporation, Pittsburgh, PA.

Bronstein, D., Talhelm, D., Richardson, L., Grether, H., and Thomas, M. (1981) *A Model Statute for Michigan's Commercial Fishery*, MICHU-SG-81-200, Michigan State University Sea Grant Program, East Lansing, MI.

Friday, G., Oblad, B., and Thomas, M. (1980) *Ecological Studies of the Merrill Creek Reservoir Project: Terrestrial Ecology*, NUS Corporation, Pittsburgh, PA.

Thomas, M. (1980) *A Conceptual Framework for Ecosystem Planning and Management*, Ph.D. Dissertation, Michigan State University, Department of Resource Development, East Lansing, MI.

Humphrys, C., Davis, P., and Thomas, M. (1978) *The Ecological Effects of Highway Construction Upon Michigan Woodlots and Wetlands*, Michigan State University, Department of Resource Development, East Lansing, MI.

Thomas, M. and Hetherington, M. (1978) *A Guide for Teaching Regional Environmental Planning*, Michigan State University, Science and Mathematics Teaching Center, East Lansing, MI.

Thomas, M. (1978) *A Checklist for Buying a Lake Lot and Safe Lake Lot Fertilization*, Water Publications of the Department of Resource Development and Cooperative Extension Service, Michigan State University, East Lansing, MI.

Regulatory Compliance Documentation

U.S. Department of Defense (Numerous Authors) (2001) *The Modification and Expansion of the Lima Army Tank Plant Production Capability*. EIA. Department of the Army TACOM, Washington, D.C.

U.S. Department of Energy (Numerous Authors) (1988) *Superconducting Super Collider, Final Environmental Impact Statement*, Chicago Operations Office and Environment, Safety, and Health, Washington, D.C.

U.S. Department of Energy (Numerous Authors) (1988) *Superconducting Super Collider Site Evaluations: A Report by the SSC Site Task Force*, Chicago Operations Office and Environment, Safety, and Health, Washington, D.C.

U.S. Department of Energy (Numerous Authors) (1986) *Environmental Assessment of the Deaf Smith County Site, Texas*, DOE/RW-0069, Office of Civilian Radioactive Waste Management, Washington, D.C.

U.S. Department of Energy (Numerous Authors) (1986) *Environmental Assessment of the Davis Canyon Site, Utah*, DOE/RW-0071, Office of Civilian Radioactive Waste Management, Washington, D.C.

U.S. Department of Energy (Numerous Authors) (1986) *Environmental Assessment of the Richton Dome Site, Mississippi*, DOE/RW-0072, Office of Civilian Radioactive Waste Management, Washington, D.C.

Friday, G. and Thomas, M. (1984) *Floodplains/Wetlands Assessment of Forest Management Activities at the Savannah River Plant*, U.S. Department of Energy and U.S. Forest Service, Washington, D.C.

Thomas, M. (1984) *Characteristics of Aquatic and Terrestrial Ecosystems of Two Study Areas in Deaf Smith County, Texas*, (BMI/ONWI-508). Office of Civilian Radioactive Waste Management, U.S. Department of Energy, Washington, D.C.

Wherley, P., Koerner, J., and Thomas, M. (1981) *Rock Run Advanced Wastewater Treatment Plant*, Environmental Impact Report and Decision Document of the Washington Suburban Sanitary Commission. NUS Corporation, Environmental Services Division, Gaithersburg, MD.

Published Conference Proceedings

Thomas, M. and Northrup, J. (2005) An ISO Approach for Integrating Smart Growth Tenets into Decisionmaking. *Proceedings of the 30th Conference of the National Association of Environmental Professionals*, April 16-19, 2005. Alexandria, VA.

Thomas, M. (2004) Change Detection and Landsat TM: A Method for Characterizing Regional Sprawl. *Proceedings of the 29th Conference of the National Association of Environmental Professionals*, April 25-28, 2004 in Portland, OR.

Thomas, M. (2004) Rapid Environmental Assessment Using Co-Occurrence Analysis for Identifying, Restoring, and Managing Wetlands. *Proceedings of the 29th Conference of the National Association of Environmental Professionals*, April 25-28, 2004 in Portland, OR.

Thomas, M. (2003) A weighted, multi-attribute, site prioritization and selection process for brownfield redevelopment. In: *Proceedings of the 28th Annual Conference of the National Association of Environmental Professionals*, Jacksonville, FL.

Thomas, M., Schools, E., Enander, H., and Paskus, J. (2003) Incorporating natural features data into land use planning. In: *Proceedings of the 28th Annual Conference of the National Association of Environmental Professionals*, Jacksonville, FL.

Thomas, M., Matta, J., Thomas, C., and Phillips, S. (2002) The community-based open space preservation program in Meridian Township, Michigan. In: *Proceedings of the 27th Annual Conference of the National Association of Environmental Professionals*, Jacksonville, FL.

Thomas, M. and Allan, J. (2000) Introduction to impact assessment: A practical course offering for future environmental professionals. In: *Proceedings of the 25th Annual Conference of the National Association of Environmental Professionals*, Jacksonville, FL.

Thomas, M., Fridgen, C., Asher, J., and Faber, B. (1999) Urban land revitalization and sustainable development: a prototype brownfields redevelopment decision support system. In: *Proceedings of the 24th Annual Conference of the National Association of Environmental Professionals*, Jacksonville, FL.

Faber, B., Thomas, V., Olsenholler, J., and Thomas, M. (1997) Enhancing stakeholder involvement in environmental decision-making: active response geographic information system. In: *Proceedings of the 22nd Annual Conference of the National Association of Environmental Professionals*, Washington, D.C.

Worrest, R., Meier, P., and Thomas, M. (1994) The Great Lakes regional environmental information system. In: *Proceedings, Computing in Environmental Management*, U.S. Environmental Protection Agency. Raleigh, NC.

Thomas, M. (1994) Planning and building a land use database to address environmental issues. In: *Proceedings of the 19th Annual Conference of the National Association of Environmental Professionals*, Washington, D.C.

Thomas, M. and Roller, N. (1993) Information systems for integrated global change research. In: *Proceedings of the 25th International Symposium for Remote Sensing and Global Environmental Change*, Graz, Austria, 4-8 April 1993, Environmental Research Institute of Michigan, Ann Arbor.

Thomas, M., Roller, N., and Colwell, J. (1993) Integrating regional studies of deforestation into a global change context. In: *Proceedings of the 25th International Symposium for Remote Sensing and Global Environmental Change*, Graz, Austria, 4-8 April 1993, Environmental Research Institute of Michigan, Ann Arbor.

Trade and Popular Journal Articles

Northrup, G. and Thomas, M. (2005) Developing Standards for Cooperative Regional Planning. *Michigan Municipal Review*, (July), Michigan Municipal League, Ann Arbor, MI.

Renando, W. and Thomas, M. (2001) Building local cooperation and capacity to address land use issues in Michigan: What we can learn from the Jackson experience. *Michigan Municipal Review*, July, Michigan Municipal League, Ann Arbor, MI.

Thomas, M. (1999) MSU Developing New Tools for Making Better Land Use Decisions. In: *ANR Newsletter*, a publication of the College of Agriculture and Natural Resources, Michigan State University, East Lansing, MI.

Invited Presentations

Health Impact Assessment Toolkit/On-Line Mapping and Impact Assessment Tool. Innovative Governance of Large Urban Systems. Michigan State University. April 21, 2015.

Health Impact Assessment Toolkit/On-Line Mapping and Impact Assessment Tool. Summit On Health In All Policies, Michigan Power to Thrive Coalition. East Lansing, MI. August 14, 2014.

Capital Region Community Health Assessment: Building Healthy and Sustainable Communities. Keynote Speaker. Ingham County Department of Health, Lansing, MI, June 9, 2007.

The Meridian Township Land Preservation Program. Getting the Balance Right: Conservation and Development in Coastal Communities of the Eastern Upper Peninsula. Newberry, MI, January 25, 2006.

Michigan Tipping Point Research Program and The Meridian Township Land Preservation Program. Keweenaw County Growth Project, Copper Harbor, MI, June 24, 2005.

The Meridian Township Land Preservation Program: The First Community-Sponsored Open Space Preservation Program in Michigan to Use Ecological Criteria in Property Screening and Acquisition. 2005 Michigan Land Use Summit, May 19-20, Lansing, MI.

An ISO Approach for Integrating Smart Growth Tenets into Decisionmaking. 30th Conference of the National Association of Environmental Professionals, April 16-19, 2005. Alexandria, VA.

A Model Watershed Management Decision Support System Based on Wetland Functional Assessment. Michigan Wetlands Conference, May 20-22, 2004. Traverse City, MI.

Change Detection and Landsat TM: A Method for Characterizing Regional Sprawl. 29th Conference of the National Association of Environmental Professionals, April 25-28, 2004. Portland, OR.

Rapid Environmental Assessment Using Co-Occurrence Analysis for Identifying, Restoring, and Managing Wetlands. 29th Conference of the National Association of Environmental Professionals, April 25-28, 2004. Portland, OR.

Modern Planning Procedure: How Planning Done Under the Recently Amended Planning Enabling Statutes Can Involve the Public (with Kurt Schindler). Presented at the Michigan Society of Planning Annual Conference, Traverse City, MI. October 12-15, 2003.

A Weighted, Multi-Attribute, Site Prioritization and Selection Process for Brownfield Redevelopment. 28th Conference of the National Association of Environmental Professionals, San Antonio, TX, June 22-26, 2003.

Incorporating Natural Features Data into Land Use Planning. 28th Conference of the National Association of Environmental Professionals, San Antonio, TX, June 22-26, 2003.

The Spatial Aspects of Public Risk Perception of Controversial Projects. Public Forum on the Redevelopment of Southwest Detroit, June 4, 2003.

The Community-Based Open Space Preservation Program in Meridian Township, Michigan. Michigan Society of Planning Annual Conference, Kalamazoo, MI, October 2-4, 2002.

Meridian Township CommunityViz and Comprehensive Development Plan. *Reshaping the Fundamentals: Strengthening Community Economies in Turbulent Times*. 2002 Summer Institute of the Michigan Partnership for Economic Development and Assistance, Center for Urban Affairs, Michigan State University. July 11, 2002.

Award Winning Natural Resource Extension Program for Responsible Land Development and Use, P. Davis and M. Thomas, Natural Resources Extension Conference, Venice, FL, June 2002. Victor Institute for Responsible Land Development and Use, Michigan State University, East Lansing, MI.

The Community-Based Open Space Preservation Program in Meridian Township, Michigan. 27th Annual Conference of the National Association of Environmental Professionals, Dearborn, MI, June 23-27, 2002.

New Tools for Land Use Decision Support: It's Not Just GIS Anymore. Michigan Society of Planning Annual Conference, October 24-27, 2001, Mackinac Island, MI.

GIS-Based Land Use Decision Support: New Resources for Extension Specialists. MSU Extension Fall Conference, Bellaire, MI, October 8-11, 2001.

The Jackson County Living Master Plan. Michigan City Management Association Annual Conference, Keynote Speaker. 1 February 2001, Ypsilanti, MI.

MSU Land Use Simulation and Planning Tools. Michigan Economic Developers Association 40th Annual Meeting, Shaping the Future Through Smart Sustainable Growth. 23-25 August 2000, Crystal Mountain, MI.

Community Information and Decision-Making Tools. *Discovering the Digital Frontier: Opportunities for Community Based Organizations and Low Income Communities*. 2000 Summer Institute of the Michigan Partnership for Economic Development and Assistance, Center for Urban Affairs, MSU. 8 June 2000, Kellogg Center.

Introduction to Impact Assessment: A Practical Course Offering for Future Environmental Professionals (with J. Allan). 25th Annual Conference of the National Association of Environmental Professionals, Portland, ME, June 17-20, 2000.

Decision Support Systems for Land Use Planning in Michigan, a hands-on GIS training program conducted at ANR Week at Michigan State University, March 2000, 2001 and 2002.

Urban Land Revitalization and Sustainable Development: A Prototype Brownfields Redevelopment Decision Support System. 24th Annual Conference of the National Association of Environmental Professionals, Kansas City, MO, June 20-24, 1999.

Enhancing Stakeholder Involvement in Environmental Decision-Making: Active Response Geographic Information System. 22nd Annual Conference of the National Association of Environmental Professionals, Orlando, FL, May 19-23, 1997.

Information Systems for Decision Support: Demonstration of a Network of Information Resources, Technologies, and Expertise to Support Decision Making. Great Lakes Information Network Conference, Lansing, MI, April 9-10, 1996.

Planning and Building a Land Use Database to Address Environmental Issues. 19th Annual Conference and Exposition of the National Association of Environmental Professionals, New Orleans, LA, June 12-15, 1994.

Development and Distribution of GAP Data—Support for EPA's Environmental Monitoring and Analysis Program. National Biological Survey Conference on GAP Analysis: The Human Dimension, Portland, OR. April 8-9, 1994.

Information Systems for Integrated Global Change Research. 25th International Symposium for Remote Sensing and Global Environmental Change, Graz, Austria, 4-8 April 1993.

Integrating Regional Studies of Deforestation into a Global Change Context. Plenary presentation, 25th International Symposium for Remote Sensing and Global Environmental Change, Graz, Austria, 4-8 April 1993.

The Use of Co-Occurrence Analysis in Identifying and Restoring Wetlands. Third Annual Conference of the Society for Ecological Restoration, Orlando, FL. May 1991.

Candidate Area Wetland Analysis, televised decision making process and programmatic results for the Michigan Low-Level Radioactive Waste Authority, Lansing, MI, February, 1990.

The Use of Remote Sensing in Environmental Risk Assessment. 1988 SETAC Conference, Washington, D.C., November 1988.

Environmental Resources of Deaf Smith and Swisher Counties, Texas. Texas Energy and Natural Resources Advisory Committee and Texas Bureau of Economic Geology, Austin, TX, February 1982.

The Land-Water Interface in Measuring Non-Point Source Water Pollution. Georgia Department of Environmental Protection, Atlanta, GA, November 1981.