

Curriculum Vitae
Michael D. Smolen

Professor, Biosystems and Agricultural Engineering Department
Water Quality Coordinator, Division of Agricultural Sciences and Natural Resources

Academic History:

- Ph.D. Environmental Sciences and Engineering, VA Polytechnic Inst. and State University, 1976.
- MS. Botany (Minor in Biochemistry), University of Tennessee, 1970.
- BS. Biology (Minor in Chemistry), University of Rochester, 1967.

Honors and Awards:

- Environmental Institute Oklahoma State University Sterling L. (Bud) Burkes Award for Outstanding Environmental Research 2005
- USDA Group Honor Award for Excellence: Poultry Waste Management Education Team 2002
- ASAE Blue Ribbon Award for Extension Method: "Trailer-Mounted Models to Educate about Natural Resource," 2001
- Natural Resource and Environmental Stewardship Award for Stream Trailers. Oklahoma Extension 4-H Agent's Association. 2001.
- Oklahoma Cooperative Extension Service. Team member for the Outstanding Educational Program, Nursery Water Quality. 1999.
- Alpha Sigma Epsilon, Honorary Member. Awarded by Students of Biosystems & Agricultural Engineering, Oklahoma State University.
- National Awards for Environmental Sustainability, Certificate of Environmental Achievement. Caring for Planet Earth. 1994.
- Regional Administrator's Environmental Excellence Award for Outstanding Service in Implementing the Requirements of the NPDES Concentrated Animal Feeding Operations General Permit, U. S. Environmental Protection Agency, Region 6, 1994
- North Carolina Cooperative Extension Service, 1993 Extension Education Award for the North Carolina Ground Water Education and Sampling Program.
- National Environmental Awards Council, Certificate of Environmental Achievement for the Oklahoma Urban IPM Program, 1992.
- National Environmental Awards Council, Certificate of Environmental Achievement for "Caring for Planet Earth," 4-H Program, 1992.
- Extension Achievement Award, Cooperative Extension Service, Oklahoma State University, Urban IPM Program, 1992.
- ASAE Blue Ribbon Award for Educational Manual: "Erosion and Sediment Control Field Manual," 1991.
- ASAE Blue Ribbon Award for Educational Manual: "Erosion and Sediment Control Planning and Design Manual," 1989.
- ASAE Blue Ribbon Award for Educational Slide Tape: "Protecting Crops Protecting Water," 1987.
- ASAE Blue Ribbon Award for Newsletter: "NWQEP NOTES," 1987.
- Gamma Sigma Delta.
- Sigma Xi.
- US EPA Graduate Traineeship, 1971-1972.
- University of Tennessee Non-Service Fellowship, 1968-1970.
- Chester A. Dewey Scholarship - University of Rochester, 1967.

Professional Societies:

- American Society of Agricultural Engineers (since 1975)
- SW-21 Hydrology Group (member)

T-09 Environmental Quality Group
P-208 Extension Committee (Chair, 2000-2001)
SW-224 (Chair, 2002-2004)

American Geophysical Union (since 1976)
American Association for the Advancement of Science (since 1976)
American Water Resources Association (since 1987)
American Water Resources Association, Oklahoma Section (First President 1995-1997)
Oklahoma Clean Lakes and Watersheds Association (since 1991)

Professional Consulting:

Sneed Lang, Attorneys – Consulting Expert
Texas Commission on Higher Education (2003)
Jason Aamodt, Atty (2003)
Johnston and Associates (2002)
City of Austin, Austin, TX (1998)
University of Nebraska, Lincoln, NE (1997)
Water Environment Research Foundation, Alexandria, VA (1995-97)
US Environmental Protection Agency, Science Advisory Board, Washington, DC (1987)
Woodward-Clyde Consultants (1987)
Research Triangle Institute, Research Triangle Park, NC (1985)
VPI&SU Agricultural Engineering Dept. Blacksburg, VA (1984)
U. S. Army Corps of Engineers. Vicksburg, MS (1983)
GKY and Associates, Springfield, VA (1982)

Committees and Task Forces:

Universities Council on Water Resources – OSU Representative (2002-)
Cooperative Extension National Water Quality Leadership Team, Past Chair 2001-2002.
USDA-CSREES Water Quality Program, National Advisory/Leadership Team, Chair 1999-2001
Oklahoma Water Quality Monitoring Council, Academic Representative (1998 -)
Oklahoma Poultry Rules Advisory Committee, Water Quality Representative (1998 -)
Oklahoma Nonpoint Source Work Group (1995-)
NRCS State Technical Committee for EQIP (1997-)
Governor's Task Force on the Illinois River (1991-1994)
Southern Region Extension Water Quality Planning Committee (1991 -), Chair: 1996-1997
Water Quality Initiative Committee, Chair, Oklahoma State University
Urban IPM Committee, Oklahoma State University
Peanut IPM Committee, Oklahoma State University
Wheat IPM Committee, Oklahoma State University
Environmental Sciences Program, Steering Council, Oklahoma State University
Great Plains Agricultural Council, Animal Waste Task Force Water Committee (1993-1994), Chair (1992-93)
Biosystems and Agricultural Engineering Department, Oklahoma State University, Graduate Committee
Center for Agriculture and the Environment, Oklahoma State University, Steering Committee (1992-1995)

Academic and Professional Appointments:

July 1994 - present. Professor, Biosystems and Agricultural Engineering Department, Oklahoma State University, Water Quality Coordinator for Division of Agricultural Sciences and Natural Resources. Member of Graduate Faculty.

November 1990 - June 1994. Associate Professor, Biosystems and Agricultural Engineering Department, Oklahoma State University, Water Quality Coordinator for Division of Agricultural Sciences and Natural Resources. Associate member of Graduate Faculty.

August 1985 to November 1990. Visiting Associate Professor, Biological and Agricultural Engineering Department, North Carolina State University. Leader of the Water Quality Group and principal investigator on all Group projects. Associate member of Graduate Faculty.

July 1983 to July 1985. Visiting Assistant Professor, Biological and Agricultural Engineering Department, North Carolina State University. Principal Investigator for the National Water Quality Evaluation Project and related water quality investigations. Associate member of Graduate Faculty.

January 1980 to July 1983. Assistant Professor, Agricultural Engineering Department, Virginia Polytechnic Institute and State University (VPI&SU). Research (80%): soil conservation and water quality management for agriculture and surface mining. Developed water quality laboratory and hydrologic/water quality monitoring program. Teaching 20%: Hydrologic Modeling, Animal Waste Management, and Microcomputer Programming.

July 1976 to December 1979. Assistant Professor, Southern Piedmont Research and Continuing Education Center, VPI&SU, Blackstone, VA. Project leader for Environmental Quality Research. Developed field monitoring and water quality laboratory.

February 1975 to June 1976. Research Associate, Southern Piedmont Research and Continuing Education Center, VPI&SU, Blackstone, VA. Developed proposals and plans for environmental research.

September 1972 to January 1975. Graduate Research Assistant, Civil Engineering Department, VPI&SU. Assisted in setting up laboratory and field sampling protocol for the Occoquan Watershed Monitoring Laboratory.

Grant Support for Extension and Research:

Communication, Coordination and Public Information for the Environmental Quality and Waste Management Team. 2006-2008. OCES \$18,000.

Grand Lake Education Support. 2006-2008. EPA-OCC \$49,000 OSU \$32,667, Total: \$81, 667.

Reducing Nutrient Loss from Lawn, Garden, Parks, and Golf Courses in the Grand Lake. 2005-2008. EPA-OCC Federal: \$199,770 State: \$199,770 Total: \$399,540

Bioretention Cell Design, Evaluation and Technology Development in Grand Lake Watershed. 2005-2008. EPA-OCC Federal: \$249, 313 State: \$166, 206 Total: \$415, 519

Southern Region Watershed Management. 2004-2008. USDA-CSREES. Federal: \$310,800.

Nonpoint Source Education Program for Spavinaw Creek Watershed. 7/2004-12/2007. OCC. M.D. Smolen, J. Hollenback, M. Beem, B. Ross. OCC: \$172,848.

Drinking Water Education for Under-Served Communities. 10/2003-9/2006. USDA, CSREES. M.D. Smolen, L. McCowan. USDA: \$250,000.

Erosion Control on Rural Unimproved Roads in Stillwater Creek Watershed, 9/2002-7/2006. Oklahoma Conservation Commission. M.D. Smolen, D. Turton, D. Wright, M. Hinkston, EPA: \$102,600. OSU: \$68,400. Total: \$171,000 (completed)

Nonpoint Source Education Program in Stillwater Creek Watershed. 7/2002-6/2006 Oklahoma Conservation Commission. M.D. Smolen, B. Barfield, D. Martin, D. Hillock, M. Schnelle, T. Bidwell, P. Bolin Federal: \$87,000. State: \$58,000. Total: \$145,000 (completed)

A Nutrient Management Decision Support System for the Eucha Basin. 9/2002-8/2005. USDA-CSREES/EPA. Marty Matlock, I. Chaubey, B. Haggard, D. E. Storm, M. D. Smolen, Will Focht. Federal: \$686,000. Total \$686,000.

Oklahoma Green Country Watershed Education Project, 10/01-9/04. USDA-CSREES. M. D. Smolen and William Ross. Federal: \$267,000. Total: \$267,000 (completed).

Illinois River Basin Education Program (Continuation). 10/00-10/02. USDA-CSREES. Federal: \$56,700 Total: \$94,500. (completed)

National Advisory/Leadership Team for Cooperative Extension Water Quality Program. 7/99-6/02. USDA-CSREES. Federal: \$100,142 (completed).

Demonstration of Best Management Practices in the Salt Fork Watershed. 1997-2001. U.S. Environmental Protection Agency. Lead PI: M. D. Smolen, Co-PI: D. E. Storm and G. Cuperus, R. Gribble, J. Stiegler, G. Johnson, G. Krenzer, R. LeValley, S. Price, H. Zhang. Federal \$90,000, OSU \$60,000, Total \$150,000. (completed)

Water Quality Special Project. USDA-CSREES. Award date: 1999-2002. Federal: \$80,000. Total: \$120,000. (Completed)

Well Head Protection Education in the South Canadian Watershed. M. Beem, N. Lansford, M. D. Smolen. US Environmental Protection Agency. 1997-2001. Federal \$90,000, State: \$60,000, Total: \$150,000. (completed)

Little Deep Fork. 2/2001-9/2001. U.S. Environmental Protection Agency and Oklahoma Conservation Commission. Federal: \$20,000 Total: \$33,333. (Completed)

Southern Region Watershed Management. 2000-2004. USDA-CSREES. Federal: \$208,000.

State Water Quality Program (ODA) 1995-2001. Oklahoma Department of Agriculture. Total: \$210,000. (completed)

Illinois River Basin Non-Point Source Management. 1991-1997. U.S. Environmental Protection Agency and Oklahoma Conservation Commission. Federal: \$40,400 Total: \$67,334. (completed)

Battle Branch Hydrologic Unit Area Project. 1990-1998. USDA-CSREES. Federal: \$560,000 Total: \$840,000. (completed)

Peacheater Creek Hydrologic Unit Area Project. 1991-1999. USDA-CSREES. Federal: \$425,000, Total: \$637,500. (completed)

Water Quality Initiative. 1990-1999. USDA-CSREES. Federal: \$500,000 Total: \$1,000,000.

Trailer-Mounted Stream Hydrology Models for Youth and Adults. U. S. Environmental Protection Agency. Chambers, B. (PI), Beem, M., M. D. Smolen, and W. Ross. 1999-2000 Federal \$24,980. (completed)

Farm*A*Syst /Home*A*Syst. USDA-CSREES. M. A. Kizer and M. D. Smolen. Federal \$10,000, Total \$15,000. Award date: 1999-2000. (completed)

Well Head Protection and Water Testing in Rural Minority Communities. USDA-CSREES. PI: Ronald Vick, M. D. Smolen, K. Williams (Langston University). Federal \$33,500, Total \$41,040. Award date: 1999-2000. (completed)

Technical Assistance for the Establishment and Maintenance of Riparian Corridors. M. D. Smolen. 1998-2000. U.S. Environmental Protection Agency and Oklahoma Conservation Commission. Federal \$57,390 OSU \$38,260 Total \$95,650. (completed)

Estimating Watershed Level Nonpoint Source Loading for the State of Oklahoma. U.S. Environmental Protection Agency/Oklahoma Conservation Commission. Lead PI: D. E. Storm; Co-PI: D. Gade, M. S. Gregory, M. D. Smolen, C. T. Haan. Federal \$25,000, OSU \$16,667, Total \$41,667.

\$41,667. 5/1/98-10/31/99. (completed)

Technical Assistance to Improve the Quality of Ground Water-Surface Interaction. 1998-2000. Oklahoma Conservation Commission and the U. S. Environmental Protection. Federal: \$82,979; State: 55,319; Total: \$138,298. (Completed)

Manure Marketing in Eastern Oklahoma. D. Peel, D. Hamilton, H. Zhang, and M. D. Smolen. 1997-2002. US Environmental Protection Agency. \$100,000, State \$67,667, Total \$167,667. (completed)

Environmentally Sound Grazing System for Utilization of Nutrients from Poultry Litter. 1997-2001. US Environmental Protection Agency/Oklahoma Conservation Commission. Leading PI: M. D. Smolen, Co-PI: J. Britton, S. Smith, H. Zhang, D. Storm. Federal \$185,792, OSU \$123,862, Total \$495,446. (Completed)

Capture and Recycle Technology for Pollution Prevention in the Nursery Industry. S. von Broembsen, M. Schnelle, R. Elliott, and M. D. Smolen. U. S. Environmental Protection Agency. Federal: \$94,500; State: \$63,000; Total: \$157,500. Award Dates: 1996-2001. (Completed)

Characterization of Stream bank Erosion on the Illinois River in Northeast Oklahoma. US Environmental Protection Agency/Oklahoma Conservation Commission. Lead PI: C. T. Haan; Co-PI: M. D. Smolen, D. E. Storm. Federal \$12,000, OSU \$8,000, Total \$20,000. (Completed).

Estimating NPS Phosphorus and Sediment Loading to the Upper Deep Fork Watershed. US Environmental Protection Agency/Oklahoma Conservation Commission. PI: D. E. Storm; Co-PI: W. Marshall, M. S. Gregory, M. D. Smolen, C. T. Haan. Federal \$10,000, OSU \$6,667, Total \$16,667. Award Dates: 3/1/97-9/31/97. (Completed)

Management Program for Riparian Wetlands to Protect Water Quality. M. D. Smolen and J. Hassell. 1994-1998. U. S. Environmental Protection Agency and Oklahoma Conservation Commission. Federal: \$140,000; State: \$60,000; Total: \$200,000. (Completed)

Small Farm Animal Waste Education Program. D. Hamilton and M. D. Smolen. 1995-1999. Oklahoma Conservation Commission and U. S. Environmental Protection Agency. Federal \$160,000; State: \$120,000; Total: \$280,000. (Completed)

Swine Waste Management Education. D. Hamilton and M. D. Smolen. 1994-1998. Oklahoma Conservation Commission and U.S. Environmental Protection Agency. Federal: \$26,000; State: \$17,333; Total: \$39,333. (Completed)

Review of Animal Waste Control Options. M. D. Smolen, P. Norris. 1994. In cooperation with the University of Oklahoma. Oklahoma Office of Secretary of Environment. \$10,000. (Completed)

Poteau River Comprehensive Watershed Management Program. 1994-1999. Oklahoma Conservation Commission and U.S. Environmental Protection Agency. M. D. Smolen, D.E. Storm; Federal \$245,000, OSU \$163,334, Total \$408,334. (Completed)

Demonstrating BMPs to Protect Surface Water Quality from Land Application of Animal Wastes. D. E. Storm, R. Huhnke, E. Allen, N. Basta, M. D. Smolen. 1994-1996. U. S. Environmental Protection Agency and Oklahoma Conservation Commission. Federal: \$115,763, Total: \$192,938. (Completed)

Pollution Prevention through "Blue Thumb" Education in the Oklahoma City Metropolitan Area. G. Cuperus and M. D. Smolen. 1994-1998. U. S. Environmental Protection Agency and Oklahoma Conservation Commission. Federal: \$35,000 State: \$23,333; Total: \$58,333. (Completed).

Farm & Ranch Wellhead and Ground Water Assessment - Pilot Program. M. D. Smolen, M. Kizer, and B. Brown. 1994-1995. EPA and the Oklahoma Conservation Commission. Federal: \$66,164, Total: \$110,273. (Completed)

Evaluation of BMPs to Protect Surface Water Quality from Pesticides and Nitrogen Applied to Common Bermudagrass Fairways. J. Baird, R. Huhnke, D. Storm, M. Smolen. 1995-1998. US Golf Association. \$38,889. (Completed).

Determining the Nutrient Status of the Upper Illinois River Basin Using a Lotic Ecosystem Trophic Index. D. Storm, M. Smolen. 1994- 1995. EPA and the Oklahoma Conservation Commission. \$11,612. (Completed)

Estimating the Nonpoint Source Pollution Loading for the Grand Lake Basin Management Plan. D. Storm, M. D. Smolen. 1994-1995. EPA and the Oklahoma Conservation Commission. \$12,963. (Completed)

Support for Implementing Effective Statewide Water Quality Programs in Oklahoma. M. D. Smolen and D. E. Storm. 1994-Completion. Oklahoma Board of Agriculture. \$35,000. (Completed)

Educational Support for Implementation of BMPs in Southwestern Oklahoma. M. D. Smolen and G. W. Cuperus. 1992-1995. EPA and Oklahoma Department of Agriculture. Federal: \$328,400, State: \$220,274, Total: \$548,647. (Completed)

Educational Programming Support to the Illinois River Basin. M. D. Smolen. 1991-1994. EPA and Oklahoma Conservation Commission. Federal: \$40,400, State: \$16,160, Total: \$56,560. (Completed)

Tulsa County Urban Water Quality Improvement Project. M. D. Smolen. 1992-1995. EPA and the Oklahoma Conservation Commission. Federal \$139,750, State: \$93,167, Total: \$232,917. (Completed)

Support for Modification to Farm-A-Syst, Farmstead Assessment Program. M. D. Smolen. 1992-1993. EPA and Oklahoma Department of Environmental Quality. Federal: \$3,000, Total: \$3,000. (Completed)

Support for Implementing Effective Statewide Water Quality Programs in Oklahoma. D. E. Storm and M. D. Smolen. 1993-Completion. Oklahoma Board of Agriculture. \$35,000. (Completed)

Evaluating Poultry Litter Management to Reduce Surface Water Contamination. D. E. Storm, R. L. Huhnke, and M. D. Smolen. 1992-1995. USDA. Federal: \$74,677, State: \$74,677, Total: \$149,354. (Completed)

Evaluation of Best Management Practices Implementation for the Tipton Wellhead Project. D. E. Storm, M. D. Smolen, and M. A. Kizer. 1991-1994. Oklahoma Conservation Commission. Federal: \$25,000, State: \$16,667, Total: \$41,667. (Completed)

Illinois River Basin: Treatment Prioritization. D. E. Storm and M. D. Smolen. 1991-1994. Oklahoma Conservation Commission. Federal: \$30,780, State: \$20,520, Total: \$51,300. (Completed)

Evaluation of Hydrologic/Water Quality Models. C. T. Haan, D. E. Storm, and M. D. Smolen. 1993-1994. U. S. Geological Survey. Federal \$13,500, State: \$27,000, Total: \$40,500. (Completed)

Evaluating Best Management Practices to Control Nitrate Contamination in Ground water. D. E. Storm, M. D. Smolen, and M. A. Kizer. 1993-1994. U. S. Geological Survey. Federal: \$13,314, State: \$26,628, Total: \$39,942. (Completed)

Food and Agricultural Science National Needs Graduate Fellowship Program. U.S. Department of Agriculture. 1995-2000 Leading PI: D.J. Turton; Co-PI: D.E. Storm, C.T. Haan, R.L. Elliott, G.O. Brown, D. L. Nofziger, N. Basta, M.D. Smolen, M.A. Kizer. Federal \$108,000, OSU \$0, Total \$108,000.

Food and Agricultural Science National Needs Graduate Fellowship Program. U.S. Department of Agriculture. 1991-1996. Leading PI: D.E. Storm,; Co-PI: C.T. Haan, R.L. Elliott, G.O. Brown, D.L.

Nofziger, D.J. Turton, N. Basta, M.D. Smolen, M.A. Kizer. Federal \$108,000, OSU \$0, Total \$108,000.

Food and Agricultural Science National Needs Graduate Fellowship Program. US. Department of Agriculture. 1991-1996. C. T. Haan, R. L. Elliott, G. O. Brown, D. E. Storm, D. L. Nofziger, D. J. Turton, J. F. Stone, M. D. Smolen, M. A. Kizer. Federal: \$108,000, OSU: \$48,606, Total: \$156,600.

Upper Poteau River Project (Nutrient and Sediment Loading to Wister Lake). D. E. Storm, M. D. Smolen, C. T. Haan. Combined sources. Oklahoma Department of Agriculture: \$47,926, Oklahoma Conservation Commission: \$10,833, Oklahoma Department of Pollution Control: \$2,406, Oklahoma Agricultural Experiment Station: \$46,245. Total: \$107,410. (Completed)

Application of Geographic Information Systems for Developing a Total Maximum Daily Load (TMDL) System for the Upper Poteau River Basin. D. E. Storm, M. D. Smolen, C. T. Haan, G. W. Sabbagh, and M. S. Gregory. 1992-1994. Targeted Research Initiative Program, Oklahoma Agricultural Experiment Station. Total: \$17,000. (Completed)

Examination of Potential Risks to Water Quality from Animal Waste Applied to Soils of Eastern Oklahoma. U. S. Department of Agriculture Soil Conservation Service. R. L. Huhnke, D. E. Storm, G. O. Brown, M. D. Smolen, B. J. Carter. Federal: \$50,000, OSU: \$45,000, Total: \$95,000. Award Dates: 5/10/90 - 9/30/92. (Completed)

Basin-wide Pollutant Inventory for the Illinois River Comprehensive Basin Management Program. D. E. Storm, M. D. Smolen, D. W. Toetz, J. Wilhm, D. J. Turton, and C. T. Haan. 1992-1994. Oklahoma Conservation Commission. Federal: \$57,000, State: \$24,075, Total: \$81,075. (Completed)

Influence of Media, Fungicide Application Methods and Wetting Agents on the Amount of Fungicides Leaching from Container Grown Crops. S. L. von Broembsen, N. T. Basta, J. M. Dole, and M. D. Smolen. 1992-1994. Targeted Research Initiative Program, Oklahoma Agricultural Experiment Station. Total: \$16,860. (Completed)

Poultry and swine litter disposal system. D. E. Storm, M. D. Smolen, C. T. Haan, R. L. Huhnke, N. T. Basta, and A. Sharpley. 1992-1993. Targeted Research Initiative Program, Oklahoma Agricultural Experiment Station. Total: \$10,600. (Completed)

Previous Support (VPI&SU and NCSU):

National water quality evaluation project. Evaluation and technical assistance to the Rural Clean Water Program. M. D. Smolen and F. J. Humenik. 1981-1992 USDA/US EPA. Total: \$1.95 million.

North Carolina Extension Service ground water education and well water testing program. F. J. Humenik and M. D. Smolen. 1989-1990. USDA Extension Service. \$25,000.

Technical support for state nonpoint source programs. M. D. Smolen and F. J. Humenik. 1988-1990. US EPA. Total: \$289,478.

Enhancement of the effectiveness of vegetative filter strips by dispersion of agricultural runoff. E. C. Franklin., J. D. Gregory, and M. D. Smolen. 1989. North Carolina, WRRI. Total: \$39,831.

Natural resource quality in Gaston County phase I: Data base to evaluate quality of natural resources (water quality component). M. D. Smolen and M. Levi. 1990. Gaston County, NC. Total: \$25,800.

Development of a guidance document entitled `Watershed Screening for Point and Nonpoint Source Impacts and Controls. M. D. Smolen and F. J. Humenik. US EPA/USDA, Total: \$40,436.

Development of a database system on the performance and selection of agricultural nonpoint source control practices. M. D. Smolen and F. J. Humenik. US EPA. Total: \$38,000.

Impact of conservation practices and resource management systems on the quantity and quality of surface and ground water: a review of existing data sources. M. D. Smolen and F. J. Humenik. USDA. Total: \$32,992.

Adaptation of existing material and development of new information for extension water quality programs. M. D. Smolen. NC Agricultural Foundation Total: \$8,000.

Development of field manual and video instructional materials for erosion and sediment control. M. D. Smolen and F. J. Humenik. NC Sediment Control Commission. Total: \$118734.

Estimation of nonpoint source loading factors for the Chesapeake Bay model. M. D. Smolen and F. J. Humenik. US EPA/USDA. Total: \$77,000.

Developing fact sheets for preventing water resource contamination from agricultural pesticides. M. D. Smolen, R. Maas, and F. J. Humenik. NC Pollution Prevention Program. Total: \$29,331.

Educational program for preventive pesticide management and disposal. M. D. Smolen, R. Maas, and F. J. Humenik. NC Pollution Prevention Program. Total: \$29,650.

Economic analysis of alternative cropland selection algorithms to promote water quality benefits under the Food Security Act of 1985. M. D. Smolen and F. J. Humenik. US EPA. Total: \$64,989.

Development of design manual for control of sediment from construction sites in North Carolina. M. D. Smolen and F. J. Humenik. NC Sediment Control Commission. Total: \$92,000.

Guidance document on economic targeting of NPS implementation. M. D. Smolen and F. J. Humenik. US EPA. Total: \$15,700.

Evaluation of Cooperative Extension's soil and water programs. M. D. Smolen and F. J. Humenik. USDA-Extension. Total: \$75,000.

Overview and evaluation of the Section 108a Pollution Control Demonstration program. M. D. Smolen and F. J. Humenik. US EPA Great Lakes Program. Total: \$10,000.

Best management practice evaluation study. M. D. Smolen. Virginia State Water Control Board. Total: \$119,903.

Simulating the hydrologic response of small forested watersheds. M. D. Smolen. US Forest Service. Total: \$12,654.

Predicting soil loss for surface mined areas. M. D. Smolen. Virginia State Mining and Minerals Research Institute. Total: \$20,000.

Effect of tillage practice on runoff quantity and quality. M. D. Smolen. Virginia Water Resources Research Center. Total: \$10,329.

Effect of agricultural land use on the chemical quality of runoff and ground water. M. D. Smolen and V. O. Shanholtz. Virginia Water Resources Research Center. Total: \$39,000.

Workshops, Conferences, and Tours Organized (OSU):

Southern Region Water Quality Conference. Lexington, KY. Chair of Program Committee. Sponsored by the Southern Region Extension Water Quality Planning Committee, USDA-CSREES, and the Southern Extension Directors. October 2005.

Water Quality Collaborative Conference, 1890-1862-1994 Land Grant Institutions Member of Planning Committee Sponsored by the Southern Region Water Quality Program and CSREES. July 12-14, 2004

Oklahoma Water Symposium 2003. Member of Planning Committee. Sponsored by OSU-Environmental Institute and Oklahoma Section of AWRA. October 29-30, 2003.

Southern Region Water Quality Conference. Ruidoso, NM. Member of Planning Committee. Sponsored by the Southern Region Extension Water Quality Planning Committee, USDA-CSREES, and the Southern Extension Directors. October 19-21, 2003.

National Water Quality Coordinators Conference. 83 participants, sponsored by USDA-CSREES, March 10-13, 2002, Boise, ID.

National Water Quality Coordinators Conference. 78 participants, sponsored by USDA-CSREES, March 11-13, 2001, San Antonio, TX

National Extension Water Quality Coordinators Conference. 85 participants, sponsored by USDA-CSREES, October 24-27, 1999, St. Louis, MO.

Riparian Area Management Workshops. One-day workshops for technical staffs of NRCS, Extension, Tribes, and other organizations. Conducted at 9 locations around Oklahoma, October 1998 through June 1999.

Water Quality and Animal Waste Conference. Oklahoma Chapter of AWRA. Oklahoma City. April 4-6, 1998.

Water Quality Day Camps. Three days of water quality day camp were conducted in Adair, Delaware, and Cherokee counties (annually since 1996). Camps were planned and conducted by Water Quality Team members.

Caring for Planet Earth Display at Tulsa State Fair. (October 1994-2001) With B. Chambers and an interdisciplinary committee.

Southern Region Extension Water Quality/Waste Management Workshop, Raleigh, NC. Member of Planning Committee. Sponsored by the Southern Region Extension Water Quality Planning Committee, USDA-CSREES, and the Southern Extension Directors. April 1999.

Eco-Camp. Environmental Issues Camp. (with Joe Bullard, Billie Chambers, Larry Sanders, Marty Green, Becki Rhea, and Marley Beem) Three days of camp for teenage youth were conducted in LeFlore County. Camp was initially funded by EPA Environmental Education Grant. June 1997, 1998.

Southern Region Extension Water Quality/Waste Management Workshop, Tulsa, OK. Chair of Planning Committee. Sponsored by the Southern Region Extension Water Quality Planning Committee, USDA-CSREES, and the Southern Extension Directors. April 1997.

Southern Region Extension Water Quality/Waste Management Workshop, New Orleans, LA. Member of Planning committee. Sponsored by the Southern Region Extension Water Quality Planning Committee, USDA-CSREES, and the Southern Extension Directors. June 1995.

Great Plains Animal Waste Conference on Confined Animal Production and Water Quality. Denver, CO. Great Plains Agricultural Council. Member of Planning Committee. October 1994.

Storm Water Management and Sediment Control Training for Inspectors, Oklahoma City. One-day short course. Sponsored by the Oklahoma City Department of Public Works and EPA. Developed with the Oklahoma Conservation Commission and Soil Conservation Service. September 1994.

Southern Region Extension Water Quality Workshop, Charleston, SC. Sponsored by the Southern Region Extension Water Quality Planning Committee and the Southern Extension Directors. April 1993.

Regional CAFO Conferences for Producers. Educational support for animal producers to explain the EPA General Permit for Discharge from Concentrated Animal Feeding Operations (CAFOs). Five one-day conferences were held in: Broken Bow, Muskogee, Ft. Cobb, Enid, and Guymon. November 1993.

Animal Waste Management, Technical Conference. Conference to introduce the EPA General Permit for Discharge from CAFOs to the technical support agencies and private consultants. Conducted with the Oklahoma RC&D Council and SCS. Oklahoma City, October 6-7, 1993.

Storm Water Management and Sediment Control Training for Developers and Contractors. Sponsored by the Tulsa Builders Association. Developed with the Soil Conservation Service. September 1993.

Satellite Teleconferences on Greenhouse IPM. Two educational programs down linked in 26 states. Developed and appeared in water quality segment. July and August 1993.

Storm Water Management and Sediment Control Training for City of Tulsa Engineers and Inspectors. Planning committee with the Soil Conservation Service. June 1993.

Satellite Teleconferences on the EPA Region 6 General Permit for Discharge from Concentrated Animal Feeding Operations (CAFOs). Two broadcasts, one afternoon telecast to answer questions for Extension and SCS staffs, a second evening telecast to answer questions from livestock producers. Both conferences featured EPA staff, the Commissioner of Agriculture, and the CAFO work group. April 21, 1993.

Tulsa Blue Thumb Volunteer Water Quality Training. Thirty-three volunteers participated in eight-week water quality training. February through April 1993.

Tulsa Resource Management Conference. Planning committee and presenter with the Tulsa Conservation District, Extension Service, SCS, and the Oklahoma Conservation Commission. Tulsa, Oklahoma. February 1993.

Southern Region Meeting of Extension Agricultural Engineers, Plan Exchange, and Housing Specialists. Planning committee and presenter. San Antonio, October, 1992.

Oklahoma Greenhouse Grower's Association seminar. Planning committee and presenter. with the Greenhouse IPM committee, October 1992.

ASAE Urban Storm water and Sediment Control Tour. Planned and conducted at the 1992 ASAE Summer Meeting. Charlotte, NC. June 1992.

Basic Greenhouse Production Practices Shortcourse. Developed by the Greenhouse IPM Program to include ground water quality. June 1992.

Oklahoma-Arkansas Illinois River Tour. Three-day tour of the Illinois River Watershed coordinated with the Oklahoma Conservation Commission, the Arkansas Conservation Commission, the Arkansas Cooperative Extension Service and the Oklahoma Cooperative Extension Service. May 1992.

Extension Water Quality Workshops. Oklahoma Cooperative Extension, Northeast, Northwest, Southwest, and Southeast Districts, November 1991 through April 1992.

Public Meetings for the Illinois River Basin project. Four separate public meetings for Decision Makers, Nursery and Greenhouse Operators, Recreation Industry Operators, and Agricultural Producers to discuss water quality concerns and explore possible solutions. Conducted with the Oklahoma Conservation Commission. February 1992.

Battle Branch Tour of Best Management Practices for Public Officials. Adair County Cooperative Extension Service. June 1991.

Southern Region Extension Water Quality and Waste Management Workshop. Planning committee and presenter. Meeting held in Atlanta, May 1991.

Teaching:

Special Topics in Rangeland Science: Rangeland Hydrology Chihauhau, Mexico June 6-17 and July 4-15, 2005

Stormwater and Sediment Control Short Course – (with Ellen Stevens and Reid Christianson), Three-day short course for Oklahoma Department of Environmental Quality. Oklahoma City, OK, June 2004.

Stormwater and Sediment Control Short Course – (with Ellen Stevens and Reid Christianson), Three-day short course for Oklahoma, Stillwater, OK June 2004.

Stormwater and Sediment Control Short Course – (with B.J. Barfield and Ellen Stevens), Three-day short course for New Mexico. Santa Fe, NM, February 2003 and June 2003.

Stormwater and Sediment Control Short Course – (with B.J. Barfield), Two-day short course. Texas Natural Resources Conservation Commission. Summer 2000.

BIOEN 3113, Quantitative Biology for Engineers, (with D. E. Storm, and B. J. Barfield). Oklahoma State University, Spring 1997.

Stormwater and Sediment Control Design Short Course – (with B. J. Barfield, C. T. Haan, and J. Hayes) Four-day short course taught Summer 1995, 1996, and 1997.

ES 5100, Assessment and Management of Nonpoint Source Pollution in Oklahoma, Oklahoma State University, Spring 1994.

Parametric Watershed Modeling - VPI&SU Agricultural Engineering Department (Graduate Level)

Microcomputer Programming - VPI&SU Agricultural Engineering Department

Dissertations (7) and MS Theses (4):

Carol V. Crouch. 2004. Dissertation Topic: An Investigation of Perceptions, Concerns, and Awareness of Environmental Issues among American Indians.

Maifan Silitonga. 2004. Dissertation Topic: Framework for Evaluating Impact of a CAFO in a Wellhead Protection Area. Oklahoma State University. Dissertation. Oklahoma State University.

Peter A. Kish. 2004. Dissertation Topic: Effects of Roundup, Glean, Aatrex, and Their Active Ingredients (Glyphosate, Chlorsulfuron, and Atrazine) On Periphyton Communities Studied by Using Matlock Periphytometer and Bottle Tests. Oklahoma State University.

Brian R. Tucker, 2000. Thesis Topic: Poultry Litter Management Strategies to Reduce Phosphorus and Nitrogen in Runoff from Pastures. Oklahoma State University.

Thomas Jack Alexander, 1999. Dissertation Topic: Evaluation of Performance and Management Strategies for a Nursery Irrigation Recycling System Designed for Pollution Control. Oklahoma State University.

Scott Stoodley, 1998. Dissertation Topic: Economic Feasibility of Riparian Buffer Implementation – Case Study: Sugar Creek, Caddo County, Oklahoma. Oklahoma State University.

Maifan Silitonga, 1998. Thesis Topic: Evaluation of risk Screening versus Oklahoma risk-Based Corrective Action for the Wellhead Protection Areas. Oklahoma State University.

Joseph D. Eigel. 1989. Dissertation Topic: Application of Body Conforming Grids to Drainage Problems. North Carolina State University. (Co-Chairman with R. W. Skaggs).

Andrezj Baniukiewicz. 1983. Dissertation Topic: Approximate Analytical Solutions for Modeling Subsurface Flow. Dissertation. Virginia Polytechnic Institute and State University. (Co-Chairman with C. Y. Kuo)

Eugene R. Yagow. 1983. Thesis Topic: Erosion and Nutrient Loading Characteristics in Two Small Agricultural Watersheds in Piedmont Virginia. MS Thesis. Virginia Polytechnic Institute and State University.

Susan M. Trapanese. 1982. Thesis Topic: A Systems Approach to Evaluate Water Quality Oriented Land Management Plans. MS Thesis. Virginia Polytechnic Institute and State University.

Publications:

Books (and Book Chapters):

Best Management Practices to Reduce Pesticide and Nutrient Runoff from Turf. 2000. Baird, J.B., N.T. Basta, R.L. Huhnke, G.V. Johnson, M.E. Payton, D.E. Storm, C.A. Wilson, M.D. Smolen, D.L. Martin and J.T. Cole.. p. 268-293 in Fate and Management of Turfgrass Chemicals. J. M. Clark and M.P. Kenna. (eds.). Am. Chem. Soc., Washington, D.C. 20036.

North Carolina Erosion and Sediment Control Field Manual. 1991. North Carolina Department of Natural Resources and Community Development, Raleigh, NC.

North Carolina Erosion and Sediment Control Planning and Design Manual. 1987. North Carolina Department of Natural Resources and Community Development, Raleigh, NC.

Videos (14):

Natural Creekbank Vegetation. Co-author with Marley Beem. Stream Trailer Project. 2001.

Oklahoma Aqua Times, Unit 4. Developed script and acted in video.Oklahoma 4-H Program. 1992.

Principals of Erosion and Sediment Control on Construction Sites. Developed script and oversaw production. North Carolina Cooperative Extension Service. 1990.

Use of Vegetation for Erosion and Sediment Control on Construction Sites. Co-author with Juanita Lichthardt. North Carolina Cooperative Extension Service. 1989.

Fact Sheets and other Extension Publications:

Riparian Buffer Systems for Oklahoma, Co-authored with R. D. Harmel, A. Fallon, and M. D. Smolen. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 1517. 1999

Using Vegetation for Erosion control on Construction Sites. S. Morrow and M. D. Smolen. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 1514. 1999

Drinking Water Testing. Hailin Zhang and M. D. Smolen. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 878 (revised). 1999

Home*A*Syst. N. Gurski, M. D. Smolen, S. Williams, B. Brown and M.A. Kizer. Five fact sheet-worksheet combinations. 1995

Pesticides in Residential Areas – Protecting the Environment. J. Criswell, L. Nofziger, J. Pruitt, G. Cuperus, M. Smolen. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 7461. 1994

Pesticides in Ground Water. J. H. Stiegler, J. T. Criswell, M. D. Smolen. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 7459. 1993

Information Sheet: EPA Region 6 General Permit of concentrated Animal Feeding Operations (CAFOs). Publication developed with USDA Soil Conservation Service. 1993.

EPA's General Permit for Storm Water Discharge from Concentrated Animal Feeding Operations (CAFO): Question and Answer Series Supplement. Numbers 1 through 4. Developed by the CAFO Work Group to explain details of the general permit. 1993.

Using Biocontrol Agents in the Commercial Greenhouse. L. A. Topliff, K. N. Pinkston, S. L. von Broembsen, M. A. Schnelle, M. D. Smolen. Oklahoma Cooperative Extension. IPM in the Greenhouse Series. OSU Facts 6713. 1991

Other Water Quality Series Publications from WQI Committee (8):

Capturing and Recycling Irrigation Runoff as Pollution Prevention Measure. S. L. von Broembsen and S. K. Wilson. 2000.

Emergency Water Supplies. M. Beem, M. Fram, B. Brown, and A. Guest. Oklahoma Cooperative Extension Water Quality Series. OSU Facts F-1519. 1999.

Household Hazardous Waste Handling Procedures to Prevent Environmental Contamination. Oklahoma Cooperative Extension Water Quality Series. OSU Facts F-7463. 1994

Rinsing and Disposing of Pesticide Containers. R. T. Noyes, P. E. Norris, and J. T. Criswell. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 7462. 1994

Riparian Forest Buffers. S. Anderson and R. Masters. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 5034. 1993

Ground Water Quality and Treatment. M. A. Kizer. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 1512. 1991

Community Wellhead Protection Programs. Freshwater Foundation. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 890. 1992

Citizen Involvement in Pollution Control in Oklahoma. P. Norris. Oklahoma Cooperative Extension Water Quality Series. OSU Facts 877. 1991

Handbooks and Manuals:

Water Quality Handbook for Nurseries. M. Schnelle, Criswell, Cuperus, Fallon, Kizer, Smolen, von Broembsen, White. Oklahoma Cooperative Extension E-951. 37p. 1998

Riparian Area Management Handbook. A. Fallon, and M. D. Smolen. Oklahoma Cooperative Extension E-952. 97p. 1998

Pollution Prevention at Exploration and Production Sites in Oklahoma. Best Management Practices for Prevention and Control of Erosion and Pollution. B. A. Fulgenzi and M. D. Smolen. Oklahoma Cooperative Extension E-940. 42p. 1995

CAFO Record Book. A record keeping system for compliance with the EPA permit for discharge from concentrated animal feeding operations. Designed by the CAFO Work Group. 1993

Oklahoma Water Quality Reference Notebook. General reference notebook for Oklahoma Cooperative Extension Offices. Contains fact sheets, and subject matter brochures and reports relating to water quality and pollution control for farms and rural and residences. Developed by the Water Quality Initiative Committee for use in County Extension Offices. 1992.

Reports:

Water Quality and Water Quantity Issues in the Southern Region: an Overview. 1999. M. D. Smolen. Southern Perspectives Volume 3, Number 3. Southern Rural Development Center.

Land application of sewage sludge: Impact on water quality. Smolen, M. D. (1995). *In* Land Application of Biosolids: A review of research concerning benefits, environmental impact, and regulations of applying treated sewage sludge. (ed. Basta, N. T.) Cooperatively published by the Oklahoma Agricultural Experiment Station and Center for Agriculture and the Environment, Division of Agricultural Sciences and Natural Resources No. B-808, p. 27-30.

Policy Options for Animal Waste Management in Oklahoma: A Report to the Governor's Animal Waste Task Force. (1994) Mark Meo, Michael D. Smolen, Patricia E. Narris, Julie M. Smith, John L. Roll, Charles L. Jacques, Patrice M. Mareshal. Available from the Science and Public Policy Program, University of Oklahoma, Norman, OK.

Newsletters:

Oklahoma Poultry Litter Market Update. Newsletter Editor, Mitch Fram.

Water Quality Update and Legislative Update. Newsletter Editor Timothy Propst.

Displays and Curricula for Public Education.

Caring for Planet Earth, wetlands, ground water, natural resources, solid waste displays, and urban nonpoint sources at the Tulsa State Fair (1994). Billie Chambers. Classroom enrichment materials were also developed for teachers.

Oklahoma Aqua Times. Suzanne Ruby. A four-volume newspaper on water quality and conservation, complete with teachers guide and video for use as curriculum enrichment for grades 3 through 6. 1992.

Stream Trailers for Natural Resource Education. 2000. Marley Beem, Billie Chambers and Mitch Fram. Interactive model with curriculum.

Articles in Refereed Journals and Refereed Research Bulletins (35):

Stoodley S., Smolen M.D., Stoecker A. 2003. Economic Feasibility of Riparian Buffer Implementation: An Evaluation of the Conservation Reserve Program for the Sugar Creek Watershed, Oklahoma. In California Riparian Systems: Processes and Floodplains management, Ecology, and Restoration. Riparian Habitat Joint Venture,

Gallimore, L. E., N. T. Basta, D. E. Storm, M. E. Payton, R. H. Huhnke, and M. D. Smolen. 1999. Water treatment residual to reduce nutrients in surface runoff from agricultural land. *Journal of Environmental Quality*, 28: 1474-1478.

Matlock, M. D., D. E. Storm, M. D. Smolen and M. E. Matlock. 1999. Determining the lotic ecosystem nutrient and trophic status of three streams in eastern Oklahoma over two seasons. *Aquatic Ecosystem Health and Management*, 2:115-127.

Matlock M. D., D. E. Storm, M. D. Smolen, M. E. Matlock, A. McFarland and L. Hauck. 1999. Development and application of a lotic ecosystem trophic status index. *Transactions of the ASAE*, 42(3):651-656. (ASAE Honorable Mention Paper Award. 2000)

Toetz, D., D.E. Storm, T. Tetong, T. Mihue, M.D. Smolen. 1999. Assessment of predictors of stream eutrophication potential. *Journal of American Water Resources Association*, 35(4): 853-865.

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Ramanarayanan, T.S., D.E. Storm, M.D. Smolen. 1998. Analysis of Nitrogen Management Strategies Using EPIC. *Journal of American Water Resources Association*, 34(5): 1199-1211.

Cole, J.T., J.H. Baird, N.T. Basta, R.L. Huhnke, D.E. Storm, G.V. Johnson, M.E. Payton, M.D. Smolen, D.L. Martin, and J.C. Cole. 1997. Influence of buffers on pesticide and nutrient runoff from bermudagrass turf. *Journal of Environmental Quality*. 26:1589-1598.

Hession, W.C., D.E. Storm, C.T. Haan, K.H. Rechhow, M.D. Smolen. 1996. Risk analysis of total maximum daily loads in an uncertain environment using EUTROMOD. *Journal of Lake and Reservoir Management*. 12(3): 331-347.

- Ramanarayana, T. S., D. E. Storm, M. D. Smolen. 1995. Seasonal pumping variation effects on wellhead protection area delineation. *Water Resources Bulletin* 31:3, 1-10.
- Matlock, M. D., D.E. Storm, S.L. Burks, M.D. Smolen, C.T. Haan. 1994. An ecological risk assessment paradigm using the Spatially Integrated Model for Phosphorus Loading and Erosion (SIMPLE). *Journal of Aquatic Ecosystem Health* 3:287-294.
- Chen, Z., D. E. Storm, M. D. Smolen, C. T. Haan, M. S. Gregory, and G. J. Sabbagh. 1994. Prioritizing nonpoint source loads for phosphorus with a GRASS-modeling system. *Water Resources Bulletin* 30:589-593.
- Spooner, J. L., W. Wyatt, S. W. Coffey, S. L. Brichford, J. A. Arnold, M. D. Smolen, G. D. Jennings, and J. A. Gale. 1991. Fate and Effects of Pollutants. Nonpoint Sources. *Water Pollution Control Federation* 63(4):527-536
- Arnold, J. A., F. M. Nevils, Jr., and M. D. Smolen. 1991. North Carolina's Sediment Control Program. *Public Works* 122(13): 48-50.
- Spooner, J., L. Wyatt, W. Berryhill, A. L. Lanier, S. L. Brichford, M. D. Smolen, S. W. Coffey, and T. B. Bennett. 1989. Nonpoint Sources. (review of 1988 literature) *J. Water Pollution Control Federation* 61(6):911-924.
- Coffey, S. W., W. S. Berryhill, D. W. Miller, and M. D. Smolen. 1989. Making Molehills Out of Mountains: Using Models to Identify Nonpoint Sources. *Lake Line, North American Lake Management Society* 9(4):14-18.
- Bottcher, A. B. and M. D. Smolen. 1988. Crackdown on NPS Pollution. *Agricultural Engineering*. 69(3):6-7.
- Hoag, D., S. Lilley, M. Smolen, M. Cook, and J. Wright. 1988. Extension's Role in Soil and Water Conservation. *J. Soil and Water Conservation*. 43(2):126-129.
- Maas, R. P., S. L. Brichford, M. D. Smolen, and J. Spooner. 1988. Agricultural Nonpoint Source Control: Experiences from the Rural Clean Water Program. *Lake and Reservoir Management*. 4(1):51-56.
- Spooner, J., S. L. Brichford, R. P. Maas, M. D. Smolen, D.A. Dickey, G. Ritter, and E. Flaig. 1988. Determining the Statistical Sensitivity of the Water Quality Monitoring Program in the Taylor Creek-Nubbin Slough, Florida Project. *Lake and Reservoir Management*. 4(2):113-124.
- Humenik, F. J., M. D. Smolen, and S. A. Dressing. 1987. Nonpoint Sources - Where Do We Go from Here? *J. Environmental Science and Technology*, 21:737-742.
- Younos, T. M., M. D. Smolen, S. Mostaghimi, and J. Spooner. 1987. Fate and Effects of Pollutants: Nonpoint Sources (review of 1986 research). *J. Water Pollution Control Federation*, 59(6):487-490.
- Spooner, J., C.A. Jamieson, R. P. Maas, and M. D. Smolen. 1987. Determining Statistically Significant Changes in Water Pollutant Concentrations. *Lake and Reservoir Management*, 3:195-201.
- Maas, R. P., A. Patchak, M. D. Smolen, and J. Spooner. 1987. Benefit/cost Analysis of Nonpoint Source Control in the Tillamook Bay, Oregon, Watershed. *Lake and Reservoir Management*, 3:157-162.
- Maas, R. P., M. D. Smolen, and S. A. Dressing. 1985. Selection of Critical Areas for Control of Nonpoint Source Pollution. *J. Soil and Water Conservation*, 40:68-71.
- Newell, A. D., T. M. Younos, M. D. Smolen, S. Mostaghimi, T. A. Dillaha, and R. P. Maas. 1985. Nonpoint Sources Literature Review. *J. Water Pollution Control Federation* 57:630-634.
- Younos, T. M., M. D. Smolen, C.A. Eiden, R. P. Maas, S. A. Dressing, and T. A. Dillaha. 1984. Review of Nonpoint Source Pollution Research. *J. Water Pollution Control Federation*, 56:689-692.

Trapanese, S. A., M. D. Smolen, and T. M. Younos. 1984. A Systems Approach for Agricultural Land Management and Water Quality Control. Transactions of ASAE, 27:817-821.

Southern Regional Research Project. 1983. Hydrologic/Water Quality Models for Agriculture and Forestry. (Editor: M. D. Smolen) Southern Cooperative Series Bulletin No. 291. Virginia Agricultural Experiment Station, Blacksburg, VA. 104p.

Younos, T. M. and M. D. Smolen. 1983. Simulating the Behavior of a Sewage Sludge-Amended Mine soil. Transactions of ASAE 26:1397-1400.

Younos, T. M. and M. D. Smolen. 1983. Nonpoint Sources Literature Review. J. Water Pollution Control Federation 55:748-752.

Younos, T. M., B. K. Theo, and M. D. Smolen. 1982. Rice Cultivation on Sludge-amended Mine Soils. BioCycle 23(6):34-36.

Ross, B. B., M. L. Wolfe, V. O. Shanholtz, M. D. Smolen, and D. N. Contractor. 1982. Model for Simulating Runoff and Erosion in Ungaged Watersheds. Bulletin 130. Va. Water Resources Research Center, Blacksburg, VA. 72p.

Smolen, M. D. 1981. Nutrient Runoff from Agricultural and Non-agricultural Watersheds. Transactions of ASAE, 24:981-987.

Smolen, M. D. and V.O. Shanholtz. 1980. Agricultural Land Use: Effect on the Chemical Quality of Runoff. Bulletin 125. Va. Water Resources Research Center, Blacksburg, VA. 82p.

Published Project Reports and Conference Proceedings (57):

White, M.J., Storm, D.E., Smolen, M.D., and Zhang H. PPM Calculator: A Tool for Pasture Phosphorus Management. Presented at the Modeling Phosphorus Transport Agroecosystems Conference, Ithaca, NY July 31-August 2, 2006

Turton, D.J. Peranich, C.M. and M.D. Smolen. Erosion from four rural unpaved road segments. Presented at the Oklahoma Water 2004 November 18-19, 2005 Stillwater, OK

The PPM Calculator – A Model for Pasture Phosphorus Management and Implementation of TMDLs. Presented at the CSREES Southern Region Water Quality Conference. Lexington, KY, October 23-26, 2005

Peranich, C.M., D.J. Turton and M.D. Smolen. Erosion from four rural unpaved road segments in the Stillwater Creek watershed. American Society of Agricultural Engineers Publication 701P0105, pp. 588-597 2005

Christianson, R.D., Brown, G.O., Smolen, M.D., and Storm D.E. Bio-Retention Cells for Treatment of Urban Runoff. Presented at the Oklahoma Water Conference, Stillwater, OK November 18-19, 2004

Frankenberger, J. R. and M.D Smolen. 2003. Land-grant Universities: Research, Education, and Local Leadership to Improve TMDLs. Proceedings of the ASAE Specialty Conference, Total Maximum Daily Load (TMDL) Environmental Regulations II. American Society of Agricultural Engineers, St. Joseph, MI. November 8-12, 2003.

S. Stoodley, M. D. Smolen, and A. Stoecker. 2001. Economic feasibility of riparian buffer implementation – case study: Sugar Creek, Caddo County OK. Riparian Habitat and Floodplains Conference. California Riparian Habitat Joint Venture. Sacramento, CA. March 12-14, 2001.

S. K. Wilson, S. L. von Broembsen, M. D. Smolen, M.W. Andrews. 1998. Pathogen Management in Capture and Recycle Irrigation Systems for Nurseries. ASAE paper 98-7004.

L. C. McCowan, M. D. Smolen, J. Wright. 1998. Groundwater Nitrate in Oklahoma (Spatial Analysis). ASAE paper 98-2212. American Society of Agricultural Engineers, St. Joseph, MI.

Smolen, M. D., D. E. Storm, M. D. Matlock. 1997. Basinwide Total Maximum Daily Load: Pros and Cons. 2nd Annual EPA Region 6 Nonpoint Source Conference, Austin, Texas, March 3-5, 1997.

Matlock, M. D., M. D. Smolen, D. E. Storm. 1997. A Risk Based Approach to Total Maximum Daily Loads. EPA Region 6 Watershed Workshop, Bandera, Texas, March 18-20, 1997.

Matlock, M. D., M. D. Smolen, D. E. Storm. 1997. Total Maximum Daily Loads: Options and Considerations. Texas Natural Resource Conservation Commission Speaker Series - Austin, Texas, May 15, 1997.

Smolen, M. D., Kenkel, P. L., and Storm, D. E. 1995. Nitrogen and phosphorus distribution in Oklahoma: A mass balance of animal feed, animal manures, crops, and fertilizer nutrients. Texas A&M Symposium, September, 1995.

Hession, W.C., D.E. Storm, S.L. Burks, M.D. Smolen, C.T. Haan. 1995. Using EUTROMOD with a GIS for establishing total maximum daily loads to Wister Lake, Oklahoma. The International Symposium on Water Quality Modeling, Kissimmee, Florida, April 2-5, 1995. In: Animal Waste and the Land-Water Interface (Ed. Kenneth Steele), Lewis Publishers, New York. pp. 215-222.

Sabbagh, G.J., D.E. Storm, M.D. Smolen, C.T. Haan, W.C. Hession. 1995. SIMPLE: sediment and phosphorus loading model. In: Watershed Management Planning for The 21st Century. Watershed Management Committee of the Water Resources Engineering Division/ASCE, San Antonio, Texas, pp. 93-102.

Olson, E. H., D. E. Storm, C. T. Haan, R. L. Huhnke, M. D. Smolen. 1994. A Methodology for Selecting Design Storms for Rainfall Simulator Studies. ASAE paper 94-2127.

Lakshminarayanan, R., M. Gregory, D. E. Storm, M. D. Smolen, W. C. Hession, and C. T. Haan. 1994. Study of Riparian Area in the Lake Wister Watershed. ASAE paper 94-2147.

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