

MARGARET MARIE CASHELL

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(435)

#### EDUCATION

M.S. 1980 Soil Science, University of Wisconsin, Madison

B.S. 1976 Agronomy, Ohio State University, Columbus

#### PROFESSIONAL EXPERIENCE

1/98 to Present Instructor, Utah On-Site Wastewater Training Center. Duties include developing and teaching on-site wastewater treatment and disposal certification classes for public health environmental scientists, contractors, engineers, and developers.

1/88 to Present Consultant, Editor and technical writer for various documents, including environmental impact statements and student theses.

6/82 to 11/86 Research Associate, Department of Civil and Environmental Engineering, University of Cincinnati. Performed soil and hydrologic research related to alternative on-site wastewater treatment and disposal for U.S. EPA-funded project. Developed and taught graduate-level course on on-site wastewater treatment. Advised and supervised graduate students and technicians. Wrote annual interim reports, research papers, and nontechnical reports, and presented research at conferences.

12/81 to 6/82 Public Health Sanitarian, State of Wisconsin. Duties included reviewing plans for on-site wastewater treatment and disposal systems. Prepared nontechnical publications on on-site systems.

7/77 to 12/81 Research Assistant, Department of Soil Science, University of Wisconsin. Performed research on chemical and physical characteristics of zinc-lead mine tailings soils in Wisconsin (thesis). Wrote proposal for thesis research funding. Developed and presented water quality and land use reports for Wisconsin counties. Participated as instructor at Certified Soil Tester refresher programs in Wisconsin.

6/75 to 7/77 Soil Scientist. Soil Conservation Service-USDA. Mapped and interpreted soils and assisted in manuscript preparation for Soil Survey Report for Wayne and Hamilton Counties, Ohio.

#### PROFESSIONAL MEMBERSHIPS AND ACHIEVEMENTS

Sigma Xi

American Society of Agronomy

Committee member for State of Utah On-Site Wastewater Disposal Technical Group (1989 - 1990)

PUBLICATIONS:

Cashell, M.M. Chemical and Morphogenetic Characteristics of Zn-Pb Mine Tailing Soils in Southwest Wisconsin. M.S. Thesis, Soil Science Dept., University of Wisconsin, Madison, Wisconsin. 1980.

Cashell, M.M., E.J. Tyler, K.C. Killian, F.W. Madison. Chemical and Morphogenetic Properties Influencing Zn-Pb Mining Waste Management. In: Proc. Third Annual Madison Conference of Applied Research and Practice on Municipal and Industrial Waste. Engineering and Applied Science, University of Wisconsin-Extension. Madison, Wisconsin. 1980.

Cashell, M.M. and D.D. Effert. Shallow Groundwater Characteristics of a Small Illinoian Till Plain Site. Agronomy Abstracts. American Society of Agronomy. Madison, Wisconsin. p. 189. 1985.

Cashell, M.M., D.D. Effert, J.M. Morand. Alternative On-site Wastewater Treatment and Disposal Systems on Severely Limited Sites. Project Summary. EPA/600/52-86/116. Water Engineering Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, Ohio. 6pp. 1986.

Cashell, M.M., D.D. Effert, J.M. Morand. Alternative On-site Wastewater Treatment and Disposal Systems on Severely Limited Sites. National Technical Information Service, No. PB 87-140 992/AS. Springfield, VA. 277 pp. 1986.

Camp, G.N., A. Bodosci, M.M. Cashell. Measurements and Modeling of Two-Dimensional Subsurface Water Movement. Abstract in: Proceedings, Ohio River Valley Soils Seminar. Cincinnati, Ohio. 1984.

Effert, D.D. and M.M. Cashell. A Comparison of the Performance of Two On-Site Intermittent Sand Filters. American Society of Civil Engineers. Fourth Ohio Environmental Engineering Conference, Columbus, Ohio. 1984.

Effert, D.D. and M.M. Cashell. The Performance of Two Intermittent Sand Filters. In: Proc. ASAE Specialty Conference on Environmental Engineering. Los Angeles, California. pp. 727-729. 1984.

Effert, D.D., J.M. Morand, M.M. Cashell. Field Performance of Three On-site Effluent Polishing Units. In: Proceedings. ASAE Fourth National Symposium on Individual and Small Community Sewage Systems. St. Joseph, Michigan. pp. 351-361. 1984.

Effert, D.D. and M.M. Cashell. Field Performance of a Low Pressure Pipe Soil Absorption Field Installation in an Illinoian Till Soil. Paper No. 85-2632. American Society of Agricultural Engineers. St. Joseph, Michigan.

Effert, D.D. and M.M. Cashell. A Comparative Study of Three Soil Absorption Field Trench Designs Installed in an Illinoian Till Soil. Presented at the National Environmental Health Association Annual Meeting. Hartford, Connecticut. 1986.