

SUNDAY, OCTOBER 21

1:00PM **REGISTRATION OPENS**

MONDAY, OCTOBER 22

7:00AM **REGISTRATION**

8:00AM **GENERAL SESSION**

Location: Salon III

Welcome - Dr. James Converse

Keynote: "Untargeted Water Management"

Dr. Bruce Wilson, University of Minnesota

**Speaking the Same Language: A Glossary for the
Decentralized Wastewater Treatment Field**

Deal, N., J. Buchanan, K. Farrell-Poe, M. Gross, D. Gustafson, D. Kalen, B.
Lesikar, D. Lindbo, G. Loomis, J. Mechell, R. Miles, C. O'Neill

Building Systems for Long-Term Performance

Dr. Bruce Lesikar, Texas A&M University

12:00PM **LUNCH**

Location: Rotunda

1:00PM **CONCURRENT SESSIONS - I, II, III**
I. TREATMENT AND PERFORMANCE OF SYSTEMS

Moderator: James Converse

Location: Salon I & II

1:30PM **Modeling Long Term Acceptance Rates for OWMs**

Radcliff, D.E. and L.T. West

2:00PM **Developing Indicators of Contamination Originating From
On-site Wastewater Treatment**

Chalew, T. and H. Weinberg

MONDAY, OCTOBER 22

- 2:30PM** **Modeling of Phosphorus Reactions during Wastewater Infiltration using Analytical and Numerical Modeling Techniques**
Lindstrom, K.A., J.E. McCray and G.D. Thyne
- 3:00PM** **BREAK**
- 3:30PM** **Organic Contaminants in Onsite Wastewater Treatment Systems**
Conn, K.E., R.L. Siegrist, L.B. Barber, and G.K. Brown
- 4:00PM** **Molecular Characterization of the Microbial Community in Onsite Treatment Units**
Tomaras, J., J.W. Sahl, J.R. Spear and R.L. Siegrist
- 4:30PM** **RECEPTION**
Location: Atrium

II. NITROGEN IN THE ONSITE TREATMENT SYSTEM

Moderator: Nancy Deal
Location: Salon IV

- 1:30PM** **Re-examining "Nitrate Toxicity": A Call for a More Rational Approach to Effluent Limits for Nitrogen in Decentralized Wastewater Treatment**
Churchill, J
- 2:00PM** **Nitrogen Removal for Cluster Residential and Commercial Development, Main Street Village, Mashpee, MA**
Lombardo, P.
- 2:30PM** **Modeling the Effect of Population Growth on Stream Nutrient Concentration in Turkey Creek Watershed using WARME Model**
Geza, M and J.E. McCray
- 3:00PM** **BREAK**
- 3:30PM** **Correlating Denitrification Rates to Soil Texture Using Hierarchical Cluster Analysis**
Tucholke, M.B., J.E. McCray, G.D. Thyne and R.M. Waskom
- 4:00PM** **Wastewater and Nutrient Reuse from an Office Building – The Huber ReUse Concept**
Schuler, S.
- 4:30PM** **RECEPTION**
Location: Atrium

MONDAY, OCTOBER 22

III. SYSTEM MANAGEMENT AND POLICY - PART 1

Moderator: Bruce Lesikar

Location: Salon V

- 1:30PM** Utilizing GIS and Land Management Data to Assess Onsite Wastewater Facilities in Small Communities
Brewer, A.T.
- 2:00PM** Integrating Rural Wastewater Management: Crow Wing County Sanitary Management District
Gilbertson, C. and R.J. Otis
- 2:30PM** The Politics of Sewage Disposal – Montgomery County (MD) On-site Systems: Should They be Used to Regulate Growth?
Von Guten, U.
- 3:00PM** BREAK
- 3:30PM** Translating a Risk-based Land-use Planning Issue to a Decision Making Tool Using Simple GIS Approaches
Carroll, S., E. Thomas, L. Fiedling, C. Dowding, L. Dawes and A. Goonetilleke
- 4:00PM** On-site Wastewater Permit Nightmares or Easy Ways to Pay Tort Claims
Young, G., Neal, K., J. Lynn, D. Lindbo and A. Adams
- 4:30PM** RECEPTION
Location: Atrium

TUESDAY, OCTOBER 23

- 7:00AM** REGISTRATION
- 8:30AM** CONCURRENT SESSIONS IV, V, VI
IV. BETTER SYSTEM DESIGN
Moderator: David Gustafson
Location: Salon I & II
- 8:30AM** Engineering of Soil Treatment Units as a Unit Operation in Onsite Wastewater Reclamation Systems
Robert L. Siegrist

TUESDAY, OCTOBER 23

- 9:00AM** **A Comparison of Conventional Septic Tank Systems and Alternative Horizontal Subsurface-flow Reed Bed Systems in the Treatment of Domestic Wastewater**
O'Lunaigh, N., L. Gill, T. Patel, P. Johnston and B. Misstear
- 9:30AM** **Conduction Shape Factor Method Applied to the Modeling of Oxygen Diffusion Through Soil**
Janna, W.S.
- 10:00AM** **BREAK**
- 10:30AM** **Long Term Impacts of Micro-Irrigation "Drip" Treatment and Disposal Systems on Delaware's Marginal Soils**
Hayes, J.G. and A.N. Moore
- 11:00AM** **Improved Sizing Methodology for Subsurface Wastewater Infiltration Systems**
White, K.D.

V. TECHNOLOGY APPLICATIONS - PART 1

Moderator: Karen Mancl

Location: Salon IV

- 8:30AM** **Performance Evaluation of a Top Loading Vertical Flow Constructed Wetland**
Spokas, L.A., P.L.M. Veneman, S.C. Simkins and S.C. Long
- 9:00AM** **Design of Delivery Device for Chlorine Dioxide Disinfection**
Gulian-Krishnaswamy, H. and K.M. Mancl
- 9:30AM** **Treatment of Turkey Processing Wastewater with Sand and Sand-Textile Bioreactors**
Gaur, R.S., K.M. Mancl and O. H. Tuovinen
- 10:00AM** **BREAK**
- 10:30AM** **Factors Affecting the Performance of Primary Treatment Units in Onsite Systems**
Victor A. D'Amato, Sarah K. Liehr
- 11:00AM** **Evaluating Pressurization Time and Application Uniformity for Residential Drip Fields**
Duan, X., B.J. Lesikar, R.A. Persyn, A.L. Kenimer, J.K. Mechel

- 12:00PM** **LUNCH**
Location: Rotunda

TUESDAY, OCTOBER 23

VI. SYSTEM MANAGEMENT AND POLICY - PART 2

Moderator: Jon Buchanan

Location: Salon V

- 8:30AM** **An environmental education program in dairy area; waste-water treatment with constructed wetland and nitrogen cycling**
Uchida T., K. Nekomoto, S. Hoshiba, K. Takahashi, A. Takai, T. Arase and F. Tazak
- 9:00AM** **Qualitative Risk Assessment of Decentralized Wastewater Management Systems in a Drinking Water Catchment**
Asquith, B.A., J. Whitehead and L. Kidd
- 9:30AM** **Updating North Carolina's Education and Training Curriculum for Onsite/Decentralized Wastewater Treatment System Operators**
Reid, S., N. Deal, B. Buffington and D. Lindbo
- 10:00AM** **BREAK**
- 10:30AM** **The Evolution of Decentralized Wastewater Management Regulations in Tennessee**
Buchanan, J.R.
- 11:30AM** **Field Performance of Advanced Wastewater Pretreatment Systems – Inferences from North Carolina's Experience**
S.J. Berkowitz

- 12:00PM** **LUNCH**
Location: Rotunda

1:30PM **CONCURRENT SESSIONS VII, VIII, IX** **VII. TECHNOLOGY APPLICATIONS – PART 2**

Moderator: Karen Mancl

Location: Salon IV

- 1:30PM** **Controlled Field Performance Evaluation of a Drip Dispersal System Used for Wastewater Reclamation in Colorado**
Parzen R.E., J. Tomaras and R.L. Siegrist
- 2:00PM** **Fixed Film Pretreatment of Winery Wastewater Using BioCOIR**
Corwin, B.K., T. Petty, K.M. Sherman
- 2:30PM** **The Benefits of a Variance Procedure in Onsite Wastewater Regulations**
Sherman, K.M.
- 3:00PM** **BREAK**

TUESDAY, OCTOBER 23

- 3:30PM** **Removal of COD and BOD5 in Sanitary Sewer Overflow with Fixed Media Bioreactors**
Tao, J., K. Mancl, O.H. Tuovinen
- 4:00PM** **Pretreatment of Turkey Fat in Wastewater in Sand Bioreactors**
Gaur, R.S., K.M. Mancl and O.H. Tuovinen
- 4:30PM** **Spectrophotometric Measurement of Chlorine Dioxide Residuals in Wastewater Disinfection Using**
Lissamine Green B, Rashmi Singh Gaur and Karen M. Mancl

VIII. IN-GROUND SOIL TREATMENT SYSTEM PERFORMANCE

Moderator: David Gustafson

Location: Salon I & II

- 1:30PM** **A Comparison Between Distribution Devices used to Split On-site Wastewater Effluent Between Percolation Trenches**
Gill, T., T. Patel and N. O'Lunaigh
- 2:00PM** **Remote Wastewater Dispersal Fields**
Greene, R.S., B.H. Ward and D. Lindbo
- 2:30PM** **Thickness and Hydraulic Properties of Drainfield Trench Biomats formed in Georgia Soils**
Finch, S.D., L.T. West, D.E. Radcliffe and E.V. Hufstetler
- 3:00PM** **BREAK**
- 3:30PM** **Development of A Standard for Gravelless Trench Products results of a Pilot Protocol Series**
Heufelder, G. K. Mroczka, S. Pradhan, M. Hoover and T. Stevens
- 4:00PM** **Evaporation-Transpiration-Infiltration Disposal Trenches**
Ahart, T.E.
- 4:30PM** **Wastewater Infiltration and Water Movement Around Trenches of Septic Systems**
Aziz Amoozegar, Kevin Martin, Christopher Niewoehner, and David Lindbo

IX. INTEGRATED WATER MANAGEMENT

Moderator: James Converse

Location: Salon V

- 1:30PM** **Water Quality Profile of an Urbanising Catchment**
Goonetilleke, A., S. Carroll, L. Daws and M. Hargreaves
- 2:00PM** **Runoff Treatment with Aspen Wood**
Thomas B. Boving, Joshua Klement, Bethany Thienel, Beverly Johnson
- 2:30PM** **Selection of An Appropriate Winery Process Wastewater Treatment Technology**
Glenn Dombeck, Maher Tleimat
- 3:00PM** **BREAK**

TUESDAY, OCTOBER 23

- 3:30PM** **Effectiveness of Alternative On-site Wastewater Treatment Technologies in the Catskill/Delaware Watershed**
Hassett, J.M., A.Chan, J.S.Martin and T.DeJohn
- 4:00PM** **Distinguishing Wastewater Contamination from On-site Systems in Mixed Land Use Watersheds**
Geary, P.M., S.A.Lucas, R.H. Dunstan and P.J. Coombes

WEDNESDAY, OCTOBER 24

- 7:00AM** **REGISTRATION**
- 8:30AM** **CONCURRENT SESSIONS X, XI**
X. SOIL AS A TREATMENT COMPONENT
Moderator: Dan Wheeler
Location: Bristol A
- 8:30AM** **Soil Mineral Precipitate Responsible for Septic System Failure**
Lee, B.D. and D.G. Schultze
- 9:00AM** **Fecal Coliform Distribution Under Pressure Dosed Onsite Wastewater Systems.**
Miles R.J., R. Rubin, and L. West
- 9:30AM** **The Occurrence of Humic Substances and Polysaccharides in Soil Treatment Units used for Wastewater Reclamation**
McKinley, J.W. and R.L. Siegrist
- 10:00AM** **BREAK**
- 10:30AM** **The Effect of Water Softener Backwash Brine in Onsite Wastewater Treatment Systems**
Gross, M. and T. Bounds
- 11:00AM** **Soil Treatment Unit Performance as Affected by Hydraulic Loading Rate and Applied Effluent Quality**
Kathryn S. Lowe, Sheila M. Van Cuyk, Robert L. Siegrist
- 11:30AM** **Ground Water Mounding Under Large Systems in Areas with Shallow Water Table**
Aziz Amoozgar, David L. Lindbo, and Christopher Niewoehner

WEDNESDAY, OCTOBER 24

XI. TREATMENT AND PERFORMANCE OF SYSTEMS

Moderator: Dave Lindbo

Location: Bristol B

- 8:30AM** **Applying Soil Morphology to Long Term Acceptance Rate Determination**
Lindbo, D.L., J. Lynn, K. Neal, G. Young, A. Amoozegar
- 9:00AM** **Distribution of Inorganic Chemical Under a Small Community On-site Wastewater Disposal System**
Surbrugg, J.E. and A. Amoozegar
- 9:30AM** **Evaluating Existing Best Management Practices (BMP's) for Site Selection and Septic System Installation**
Deal, N., D. Lindbo, R. Coburn, D. Rashash, M.E.-Brunner, and C. Humphrey
- 10:00AM** **BREAK**
- 10:30AM** **Determination of Limits to Biological Loading Rate in Column Experiments with Florida Sandy Soil**
Roeder, E., D. Bloomquist and P.W. Booher
- 11:00AM** **Reduction of Bacteriologic and Chemical Constituents of Septic Tank Effluent with Depth Using a Drip Dispersal System**
Hepner, L.D., D. Linde, C. Weber, and D. Smith