

Conference Agenda

Tuesday, October 25th

OPENING GENERAL SESSION:

Soil Science and On-Site Wastewater

Moderator: David Lindbo, NC State University

8:15	Welcome David Lindbo, NC State University
8:30	Historical Perspectives Dr. Peggy Minnis, Pace University
9:15	What Can Models Tell Us About On-Site Systems? Dr. David Radcliffe, University of Georgia
10:30	Break in the Manufacturers Exhibit Hall
11:00	The Soil Component in the National Model Code Dr. Jerry Tyler, University of Wisconsin
12:00	Luncheon and Awards

CONCURRENT SESSIONS

Session 1: Site Evaluation and Design of Large Systems Moderator: Jim Beeson, Soil and Environmental Consultants, Inc.	
1:30	Mounding and Lateral Flow Analysis – Coastal Areas Thomas Hinson, Cpec Environmental, Inc.
2:00	Mounding and Lateral Flow Analysis – Piedmont Region Dr. Aziz Amoozegar, NC State University
2:30	Lateral Flow Analysis – Mountain Region John Allison, Southeast Soil Science, Inc.
3:00	Break in Manufacturers Exhibit Hall
3:30	Modeling Lateral Flow, Mounding and Contaminant Transport Edwin Andrews, Edwin Andrews and Associates
4:00	Analysis of Mounding/Lateral Flow and Groundwater Transport – EHS Review of Data–Point and Counterpoint Dr. Bob Uebler and Steven Berkowitz, NCDENR
4:30	SOP Educational Efforts Connie Pixley, NCDENR, OSWW
5:30	Pig Pickin" At Lake Wheeler

CONCURRENT SESSIONS

Session 2: <i>The Science Behind Soil and Site Evaluations and Regulations</i> Moderator: Kevin Neal, NCDENR	
1:30	<i>The Science Behind Apparent CEC, Atterberg Limits, Morphology, and Expansive Mineralogy and Regulation</i> Dr. Dean Hesterberg, NC State University Alan Clapp, Orange County Health Department
2:30	Break in Manufacturers Exhibit Hall
3:00	<i>Soil Wetness and Morphological Relations</i> Dr. David Lindbo, NC State University
3:30	<i>Saprolite or Deep Installations</i> Dr. Aziz Amoozegar, NC State University
4:00	<i>Using Soil Structure for Estimating Wastewater Loading Rates</i> Dr. Jerry Tyler, University of Wisconsin
4:30	<i>Gravel and Sidewall Effects</i> Dr. David Radcliffe, University of Georgia
5:30	Pig Pickin" At Lake Wheeler

Wednesday, October 26th

7:30am	Continental Breakfast
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Concurrent Sessions

	<p align="center">Session 3: <i>Nutrient and Pathogen Reduction and Watersheds</i> Moderator: Lorna Withrow, NCDENR</p>
8:30	<p><i>Sources of Nutrients in the Wastewater Stream</i> Dr. Peggy Minnis, Pace University</p>
9:00	<p><i>Fate and Transport of Wastewater Constituents in Soil Treatment Systems: Endocrine Disrupters, Pharmaceuticals and Personal Care Products, and Household Chemicals</i> Dr. Barbara Grimes, NCDENR</p>
9:30	Break in the Manufacturers Exhibit Hall
10:00	<p><i>Integrated Design Principles for Effective Water and Nutrient Management</i> Victor D’Amato, ARCADIS Dr. Hal House, Integrated Water Strategies</p>
10:30	<p><i>Nitrate Groundwater Contamination from an Elementary School – A Case Study</i> Trish Angoli, NCDENR</p>
11:00	<p><i>Stream Water Quality Monitoring Results from an Urban Residential Area That Converted from Septic Systems to Sewer</i> Dr. Diana Rashash, NC Cooperative Extension</p>
11:30	<p><i>Water Quality Impacts from Onsite Systems in Nags Head</i> Amy Macrellis, Stone Environmental, Inc.</p>
12:00	Lunch on Your Own

Wednesday, October 26th

7:30am	Continental Breakfast
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Concurrent Sessions

	Session 4: <i>Presentations from the Call for Abstracts</i> Moderator: Dr. Alexandria Graves, NC State University
8:30	<i>Quality Assurance for Local On-Site Wastewater Programs</i> Roger Wesley, Burke County Environmental Health
9:00	<i>When Are “Poor Perking” Soils the Best Soils?</i> Craig Goodwin, NCS Wastewater Solutions
9:30	Break in the Manufacturers Exhibit Hall
10:00	<i>Wastewater Spray Irrigation Systems in North Carolina</i> Karl Shaffer, NC State University
10:30	<i>Centralized Low Income Assistance for Septic Repairs in NC</i> Terrell Jones, NCDENR
11:00	<i>A Decentralized Wastewater Management Plan for Nags Head: A Coastal Community’s Approach</i> Mary Clark, Stone Environmental, Inc.
11:30	<i>A Microbial Source Tracking Case Study: Are On-Site Wastewater Systems Failing Us?</i> Dr. Alexandria Graves, NC State University
12:00	<i>Lunch on Your Own</i>

Wednesday, October 26th

7:30am	Continental Breakfast
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Concurrent Sessions

	Session 5 <i>Remote Systems – County Approaches</i> Moderator: Dr. Diana Rashash, NC Cooperative Extension
8:30	<i>Remote Systems: Where we've been and where we're going.</i> Heath Ward, Guilford County Health Department
9:00	<i>Planning Strategies and Smart Design</i> Chad Rakes, Forsyth County Health Department Alan Clapp, Orange County Health Department
9:30	<i>Permitting, Responsibilities, and Legal Issues</i> Tom Konsler, Orange County Health Department
10:00	Break in the Manufacturers Exhibit Hall
10:30	<i>Construction Issues</i> Albert Mills, Orange County Health Department
11:00	<i>Operation and Maintenance Case Studies</i> Scott Greene, Guilford County Health Department Wayne Jones, Randolph County Health Department
11:30	<i>Speaker Panel Answers Your Questions</i>
12:00	<i>Lunch on Your Own</i>

Closing General Session

Case Studies of Difficult Sites

Moderator: Dr. Bob Uebler, NCDENR

1:30	<i>Case Study: An Option for a Site Suspected to Have Expansive Clay Mineralogy</i> Scott Greene, Guilford County Health Department Alan Clapp, Orange County Health Department
2:00	<i>Soil Wetness Data Interpretation Methods for On-Site Wastewater Sewage Treatment Systems in North Carolina</i> Tim Crissman, NCDENR 2nd Presenter TBD
2:30	<i>Lessons Learned from a Deep Saprolite Design and Installation</i> Kevin Martin, Soil and Environmental Consultants Curtis Hopper and Scott Wilson, Gaston County Health Department
3:00	Break in the Manufacturers Exhibit Hall
3:30	<i>Sand Lined Trench</i> <i>Toney Jacobs, S&ME</i> George Pendergrass, Catawba County Health Department
4:00	<i>Mountain Soils: Topography, Slope, and System Options</i> Stuart Black, McDowell County Health Department Joe Lynn, NCDENR
4:30	<i>Limited Space and Human Error</i> Kathy Morris, February Associates, Inc. Dolores Chandler, Chandler Soil Consultants, Inc. Steve Bristow, Wake County Environmental Services
5:00	Adjourn for the day

Thursday, October 27

Field Day Options

Option 1	Coastal Plain Pitt County 8:30am-12:30pm Dr. Bob Uebler, NCDENR <ul style="list-style-type: none">• East Carolina University field site• Redox features
Option 2	West Central Piedmont Piedmont Research Station, 8350 Sherrills Ford Rd., Salisbury 8:30am-12:30pm Kevin Neal and Gene Young, NCDENR <ul style="list-style-type: none">• Morphology and on-site rules• 2 flood plain soils• 2 Mecklenburg series• 2 Enon series• 1 shallow soil
Option 3	Northwestern Mountains Upper Mountain Research Station, 8004 NC Hwy 88 East, Laurel Springs 9:00am-1:00pm Joe Lynn, NCDENR <ul style="list-style-type: none">• Topography & landscape position• Rock percentage• Saprolite suitability• Slope stability

Thursday, October 27

Field Day Options (cont.)

Option 4	<p>Tire Chip Aggregate Processing and Installation US Tire Recycling, 6322 Poplar Tent Rd., Concord 10am-4pm includes lunch Dr. Barbara Grimes, NCDENR</p> <ul style="list-style-type: none">• Tire processing and monofilling• Tire chip installation for drain lines
Option 5	<p>Wastewater Treatment Technologies Lake Wheeler Training Center, S. Lake Wheeler Rd., Raleigh 8:30am-12:30pm Dr. Mike Hoover, NC State University; Trish Angoli, NCDENR Doug Lassiter, NC Assn. of On-Site Professionals</p> <ul style="list-style-type: none">• Hands-on demonstrations & displays• Basic pretreatment – grease traps, tanks, effluent filters• Advanced pretreatment – aerobic treatment, packed beds, disinfection• Natural land-based treatment – soil & water impacts
Option 6	<p>Integrated Stormwater and Wastewater Design Wake County 8:30am-12:30pm John Davis, S&ME, Inc. Dr. Bob Rubin, NC State Univ. (Emeritus) and McKim & Creed Engineers</p> <ul style="list-style-type: none">• Stormwater requirements• Wastewater disposal requirements• Technologies for integrated management