

Managing Extremes: Watersheds and Climate Disruption
May 4 - 7, 2010 Winston-Salem, North Carolina

Hosted by: NCLMS

North Carolina Lake Management Society

Southeastern lakes and reservoirs are a unique and vital resource which the members of NCLMS and NALMS strive to protect. Factors such as geography and climate distinguish us from the nation as a whole. This conference is focused on the continuing challenges facing professionals and non professionals who are charged with protecting, managing and maintaining water quality, water supply and aquatic resources under the extreme circumstances of weather and climate change. Drought management, flood control and related issues are among those addressed in the Conference. The program is designed to bring individuals together who are seeking practical and technically sound solutions to water quality problems.

Tuesday May4, 2010

PRE-CONFERENCE WORKSHOPS

8:00 AM – 4:00 PM

Algae Identification

Instructors: Linda Ehrlich, PhD, Phycologist and JoAnn Burkholder, PhD, NCSU.

This workshop will provide information on how to recognize nuisance algae, understand why they become nuisances, and select appropriate means of control in the source water. Fee includes an outstanding workshop notebook for further reference. This workshop is an excellent opportunity for all participants to get hands-on experience with the species that may be troubling their waters.

The Algae Workshop has been approved for 0.75 CEUs by NALMS and 2.0 CEUs by the NC Water Treatment Facility Operators Board.

Fee: \$175 with a conference registration Min. 10 participants

8:00 AM – 5:00 PM

“Man VS Stats”, a survival guide for the statistical wilderness

Data can be dangerous – not like the textbook cases presented back in your college course. Dangers such as skewness, outliers and nondetect values lurk, ready to strike. This workshop will teach basic survival skills for analysis of environmental data.

Survival skills include when to transform data and why, how to handle outliers, and advantages of newer nonparametric and permutation tests for scientific data analysis. Common pitfalls of traditional methods will be discussed. Danger signs in regression will be taught so you can spot them in the field. Attend this workshop to clear up misconceptions, find further resources, and get yourself heading in the right direction.

Instructor: Dennis Helsel, PhD, Environmental Science and Engineering, Virginia Tech

Fee: \$175 with a conference registration Min. 15 participants

Wednesday May 5, 2010

CONFERENCE WORKSHOPS

8:00 AM – NOON

Life and Death for Lakes: Basic Properties and Processes

Leader: Dr. John Hains, Clemson University

This workshop will introduce the basics of limnology (study of lakes and streams) and the factors that support good management and stewardship. It will also introduce the most common concerns for the long-term well-being of lakes and some of the management and enhancement techniques.

No fee, included with conference registration

9:00 AM – NOON

Local Stream Restoration Tour

Leader: Darrell Westmoreland, North State Environmental

Participants will visit recent stream restoration and enhancement projects to view stream channel realignment, instream structures, stream bank stabilization, and riparian buffer planting. Tour leader will discuss restoration design, construction, and monitoring. Transportation to the sites will be provided.

Fee: \$20 to cover cost of van, snacks and beverages

PLENARY

1:30 PM Welcome and Opening Remarks

Ann Shortelle, NALMS Regional Representative
Carol Adams, NCLMS President
Mr. Allen Joines, Mayor of Winston-Salem

1:45 PM Plenary Address: (Climate Disruption)

Linda Rimer, US EPA Region 4 Liaison to NC

2:30 PM – 3:00 PM BREAK (refreshments provided)

3:00 PM – 5:00 PM Sessions (see enclosed agenda)

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NCLMS
P. O. Box 18663
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Managing Extremes: Watersheds and Climate Disruption



*North American Lake
Management Society (NALMS)
Nineteenth Annual*

**Southeastern Lakes
Management Conference**

May 4 - 7, 2010

Winston-Salem, NC

**Hawthorne Inn and
Conference Center**

Hosted by:

North Carolina Lake Management Society



GENERAL CONFERENCE INFORMATION

WINSTON-SALEM

Winston-Salem was founded in 1913 with the merging of Winston, an industrial, textile and tobacco center, and Salem, a town settled in 1766 by German Moravians (Protestants). The area's early history can be experienced by visiting Old Salem, a living history museum, and Historic Bethabara Park, North Carolina's first Moravian settlement. Other Winston-Salem attractions include Tanglewood Park, the Reynolda House Museum of American Art and Kōrners Folley.

CONFERENCE HOTEL & LODGING:

The Hawthorne Inn and Conference Center is conveniently located in central North Carolina. Owned and operated by Wake Forest University Baptist Medical Center, the Inn is conveniently located in downtown Winston-Salem – at the doorstep of Old Salem.

The conference rate is \$77 for single, double, double /double or King plus taxes. Complimentary breakfast is included with room. Reservations can be made by calling 800 972-3774 and ask for the NC Lake Management Conference block or online @ www.hawthorneinn.com code 26D4ES. **The reserved block of rooms at the conference rate will only be available until Friday, April 2, 2010- so reserve early at the discounted rate!**

DIRECTIONS: From the East – Take I-40, take the Business 40 exit to downtown Winston-Salem. Take the Cherry Street exit 5-C onto High St. Front Entrance to hotel is immediately on your right. From the West – Take I-40, take the Business 40 split (exit 206) into downtown Winston-Salem. Take the Cherry St exit 5-C onto Cherry St. Turn left at the first traffic light onto First St. Turn left at next light onto Marshall St. Cross over Business 40 and through the next light. Hotel's rear entrance will be on your right. Their phone number is 336-777-3000 or Toll Free 800-972-3774.

Check Hotel website for more information plus other recreational activities that can be arranged for that long weekend you are taking in beautiful piedmont NC: www.hawthorneinn.com.

AIR AND GROUND TRANSPORTATION

Primary airport is Piedmont Triad International, only a 30 minute drive.

PARKING

Parking is available for conference attendees and hotel guests at the hotel at no cost.

REGISTRATION

The registration desk is located in the Sycamore Foyer and will be open 7 AM – 5 PM May 4, 5 & 6 and 7AM – 10 AM May 7.

MEALS & ENTERTAINMENT

Each Day - Morning Coffee, 2 Breaks w/ Beverages & Munchies.
Wednesday – Evening Reception.
Thursday – Lunch & Speaker.
Friday – Box Lunch. Additional information on activities in the area will be included in your registration package.

HOSPITALITY SUITE

Times: Tuesday, May 4th 9:00 PM to midnight; Wednesday, May 5th 9:00 PM to midnight; and Thursday, May 6, 8:00 PM - midnight. Take the opportunity to meet new people, catch up on activities with old friends and acquaintances, and learn about new happenings in the fields of lakes and watersheds. Location will be in your registration packet.

REGISTRATION INFORMATION CONTACT:

Barbara Wiggins, Treasurer
Phone: 828-254-5644 Fax: Contact Barbara for Fax number
Email: bswiggins@bellsouth.net

EXHIBIT INFORMATION:

The exhibitor booths are available for both profit and non-profit organizations. Exhibits and products will be on display in the Sycamore Exhibit Hall from Wednesday noon through Friday morning.

Cary Martin, Exhibit Coordinator
Phone: 321-303-2389 Fax: 815-664-4901
Email: Cary.Martin@aquacontrol.com

PROGRAM INFORMATION CONTACT:

Brad Fairley
Stantec Consulting Services
Phone: 919-851-6866 ext. 255 Fax: 919-851-7024
Email: bfairley@stantec.com

GENERAL CONFERENCE INFORMATION CONTACT:

David Buetow, Conference Co-chair
Mecklenburg County Storm Water Services
Phone: 704-336-3983, Fax: 704-336-4391
Email: David.Buetow@MecklenburgCountyNC.gov

Jef Morgan, Conference Co-chair
Peroxygen Solutions
Phone: 336-707-1829
Email: jmorgan@triad.rr.com

CONFERENCE SPONSORS:

North Carolina Division of Water Quality
U.S EPA, Region IV
Duke Energy
Peroxygen Solutions
Georgia Power
Tennessee Valley Authority
YSI
Stantec
Solveit
Aqua Control, Inc.
JP Optical Consulting
Wiggins Environmental Services
Mecklenburg County Storm Water Services

REGISTRATION FORM

NALMS: Nineteenth Annual Southeastern Lakes Management Conference
May 4-7, 2010 Winston-Salem, NC

Use this form or register online at www.nclakemanagement.org

DELEGATE INFORMATION:

Please print clearly

Name: _____
(last/surname) (first name) (middle initial)

Affiliation: _____

Mailing Address: _____

City: _____

State/Province: _____

Zip/Postal Code: _____

Email: _____

Phone: _____

Fax: _____

Special Needs Information:

- Vegetarian
- Other (Please explain): _____

REGISTRATION – Please circle one.

Full Conference Registration

Early Bird (by Apr. 1) \$175	Regular and On-site (after Apr. 1) \$200
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Includes two lunches, reception on Wednesday night, all breaks and snacks and conference material. On-site registration cannot be guaranteed meals.

Student Registration (Full)

Early Bird (by Apr. 1) \$50	Regular and On-site (after Apr. 1) \$75
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Includes two lunches, reception on Wednesday night, all breaks and snacks and conference material. On-site registration cannot be guaranteed meals.

One-Day Conference Fees*

Early Bird (by Apr. 1) \$100	Regular and On-site (after Apr. 1) \$125
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*Includes all meals and breaks on the day for which you register; plus conference materials; meals cannot be guaranteed to on-site registrants.

Box Lunch on May 7th? Yes No

Workshops –must pre-register (minimum 10 participants in Workshop 1 and 15 participants in Workshop 2):

May 4 – Pre-conference all day workshops

Workshop 1 - “Algae Identification”
\$175 with a conference registration fee \$ _____

Workshop 2 - “Man VS Stats”, a survey of environmental statistics methods
\$175 with a conference registration fee \$ _____

May 5 – Morning workshops

Workshop 3 - “Local Stream Restoration Tour”
\$20 \$ _____

Workshop 4 – “Life & Death for Lakes: Basic Properties & Processes”
Included in registration –check if attending

Conference Registration from other column \$ _____

Total Payment \$ _____

Type of payment:

- Check (Make payable to "NCLMS")
- Credit Card – please supply the following:

Credit Card #: _____

Security Code: _____

Expiration Date: _____

Name as it appears on Card: _____

Signature: _____

Send completed form and remittance to:

NCLMS
P. O. Box 18663
Asheville, NC 28814

Registration Questions: Barbara Wiggins

On-line Registration: Go to www.nclakemanagement.org & pay through the shopping cart option on the site.

Payment Policy:

Registration must be paid in full and received by NCLMS on or before Thursday, **April 1, 2010**, to qualify for early registration discounts. Registrations received after Thursday, April 1, 2010, will require payment of the full registration fee. Contact Barbara Wiggins, Registration, bswiggins@bellsouth.net or call 828-254-5644 by April 1 to arrange for late payments.

Cancellation Policy:

Event cancellation requests must be submitted by email to bswiggins@bellsouth.net and received before Thursday, April 15, 2010 to receive a full refund, less an administration fee of \$50. Cancellation requests received by NCLMS after April 15, 2010, will be ineligible for refund.

Substitution Policy:

Attendee substitutions for paid registrations may be made at any time. Please send an email to bswiggins@bellsouth.net with the new attendee information


DID YOU CHECK OFF YOUR CHOICES & INCLUDE THEM IN THE TOTAL PAYMENT AS APPROPRIATE?

NALMS 19th ANNUAL SOUTHEASTERN LAKES MANAGEMENT CONFERENCE, WINSTON-SALEM, NORTH CAROLINA
Managing Extremes: Watersheds and Climate Disruption

Preliminary Agenda – Please check NCLMS website frequently for updates – www.nclakemanagement.org

Tuesday May 4, 2010 – Preconference Workshops: Algae Identification & “Man VS Stats”, a survey of environmental statistics methods

Wednesday May 5, 2010

8:00 AM – 12:00	Workshops – Local Stream Restoration Tour & Life and Death for Lakes: Basic Properties and Processes Exhibitor Set Up			
1:30 PM – 2:30 PM	Plenary Session - Sycamore			
3:00 - 4:30 PM Session I	TECHNICAL	WATERSHED MANAGEMENT	WATER QUALITY	RESERVOIR MANAGEMENT
	<p align="center"><u>Stormwater Management - A Municipal Perspective</u></p> <p>Chair: Mike Babuin</p> <p align="center">Town of Cary's Stormwater Program MIKE BABUIN, TOWN OF CARY</p>  <p align="center">Under development</p>	<p align="center"><u>Drought Management</u></p> <p>Chair: Tom Fransen Drought Management in North Carolina TOM FRANSEN, NCDWR</p> <p>Reservoir Management During Droughts: Wilmington District USACE Experience during Recent Droughts in NC & VA TONY YOUNG, USACE, WILMINGTON DISTRICT</p> <p>Low Flows Protocols in the Catawba and Nantahala Basins ED BRUCE, DUKE ENERGY</p>	<p align="center"><u>Assimilative Capacity Modeling in Support of the Georgia Comprehensive State-Wide Water Management Plan</u></p> <p>Chair: Brian Watson Overview of the Georgia Comprehensive State-Wide Water Management Plan ELIZABETH BOOTH, GA DNR/EPD</p> <p>Steady-State Modeling in the Coosa River Watershed ELIZABETH BOOTH</p> <p>Watershed Modeling in the Coosa River Watershed JEREMY WYSS, TETRA TECH</p> <p>Lake Modeling in the Coosa River Watershed EDWARD MOYER, TETRA TECH</p>	<p align="center"><u>Harmful Algal Blooms</u></p> <p>Chair: Linda Erlich</p> <p align="center">TBA LINDA ERLICH</p> <p align="center">TBA JOANN BURKHOLDER, NCSU</p> <p>Climate Change Stimulates Freshwater Harmful Algal Blooms (FHABs): A Within- Waterbody Management Solution KENNETH HUDNELL, SOLARBEE, INC</p>
5:30 - 7:30 PM	Reception All conference participants are invited. The Sycamore Exhibit Hall will be filled with exciting products, product improvements, projects and ideas from organizations, agency displays, and other booths that could help you in your future management of lakes and watersheds. Be sure to bring an appetite because we'll have plenty of food to munch on while you view the displays and talk with other participants. This event is included in your conference registration. Hospitality Room will be open at 9:00 PM.			

Thursday May 6, 2010

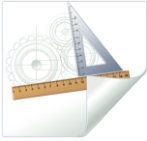
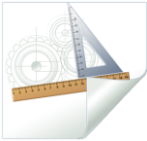
7:00 AM - 5:00 PM	Registration - Sycamore Lobby			
7:00 - 8:00 AM	SE Planning Meeting Breakfast - location to be determined			
7:30 - 8:30 AM	Drinks & Snacks (Sycamore) - Hotel guests get free full continental breakfast			
Morning Sessions	EDUCATION/OUTREACH	TECHNICAL	WATERSHED MANAGEMENT	WATER QUALITY
8:30 - 10:00 AM Session II	<p align="center"><u>Lake Associations</u></p> <p>Chair: Carol Adams</p> <p>Open discussion session for Lake Associations and others</p>	<p align="center"><u>Sustainable Stormwater</u></p> <p>Chair: Jennifer Jones DWQ Stormwater Program JENNIFER JONES, NC DIVISION OF WATER QUALITY</p> <p>Sustainable Stormwater: Optimized Management of Ponds and Other BMPs KERRY A. REED, MACTEC</p> <p>An Introduction to NCSU's <i>Low Impact Development Guidebook</i> and Accompanying Tools CHRISTI PERRIN, NCSU</p>	<p align="center"><u>Reservoir Nutrient Management Strategies</u></p> <p>Chair: Kathy Stecker</p> <p>Numeric Nutrient Criteria: The Continuing Florida Saga ANN SHORTELE, MACTEC</p> <p>Lessons Learned From a Legacy TMDL BARRY GULLET, CITY OF CHARLOTTE</p> <p>ELIZABETH BOOTH, GA DNR/EPD (INVITED)</p>	<p align="center"><u>Water Quality Concerns</u></p> <p>Chair: Bill Frazier (Soil & Erosion)¹ EARL DAVIS, NC DIVISION OF SOIL & WATER CONSERVATION</p> <p>Invasive Aquatic Weed Dynamics in North Carolina ROBERT RICHARDSON, NCSU</p> <p>2009 Status Report: Volunteer Invasive Efforts in Conjunction w/ USFWS "Stop Aquatic Hitchhikers" Program BILL FRAZIER, CITY OF HIGH POINT</p>
10:00 - 10:30 AM	Drinks & Snacks (Sycamore)			
10:30 AM - NOON Session III	<p align="center"><u>Lake Associations</u></p> <p>Chair: Carol Adams</p> <p>Panels, Speakers and Open Forum Sessions for Lake Associations and others.</p> <p>Topics to be covered include: Member Recruitment, Fundraising, Water Quality Testing, Boating Safety, Shoreline Protection and Erosion Control</p>	<p align="center"><u>MS4s & TMDLs: Murky Waters</u></p> <p>Chair: Ann Shortelle</p> <p>(Reservoir Restoration & TMDLs) HARVEY HARPER</p> <p>MS4 Permits & TMDL Requirements MIKE RANDALL, NCDWQ</p> <p>TBA RUSTY ROZZELLE, MECKLENBURG COUNTY STORM WATER SERVICES</p>	<p align="center"><u>Stakeholder Processes: The Groan Zone</u></p> <p>Chair: Kathy Stecker</p> <p>Panel Discussion 3 Panelists -</p>	<p align="center"><u>Invasive Species</u></p> <p>Chair: Bill Frazier (Invasive Snails) JOHN HAINS, CLEMSON UNIVERSITY</p> <p>Spatial and Seasonal Dynamics of Nonindigenous <i>Daphnia lumholtzi</i> and other crustacean zooplankton in Falls Lake (central North Carolina SANDRA COOKE, PhD, DUKE UNIVERSITY</p> <p>(Introduced Fish) LAWRENCE DORSEY, NCWRC (invited)</p>
Noon - 1:30 PM	Lunch Speaker - Dr. Jason Ortegren "Drought - What's A Tree Ring Got To Do With It?"			

¹ Parenthesis () indicates tentative title.

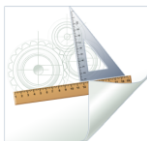
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Afternoon Sessions	TECHNICAL	WATERSHED MANAGEMENT	WATER QUALITY
1:30 - 3:30 PM Session IV	<p align="center"><u>Municipal Water Quality Issues</u></p> <p>Chair: Michelle Woolfolk</p> <p align="center">TBA</p> <p>MICHELLE WOOLFOLK, CITY OF DURHAM STORMWATER SERVICES</p> <p align="center">TBA</p> <p>McDowell Creek Watershed Management Plan DAVID KROENING, MECKLENBURG COUNTY STORM WATER SERVICES</p>	<p align="center"><u>Pond Management</u></p> <p>Chair: Johnny Foster</p> <div align="center">  <p>Under development</p> </div>	<p align="center"><u>Watershed Restoration: The Lake Rhodhiss Story Part 1</u></p> <p>Chair: Paul Clark</p> <p>Use Restoration Watershed: State Perspective of Lake Rhodhiss PAUL CLARK, NCDWQ</p> <p align="center">(Lake Rhodhiss Background) TONY GALLEGOS, WPCOG</p> <p>Non-Point vs. Point Sources of Nutrients & the Development of a Nutrient Budget for Rhodhiss Lake, NC JACK HUSS, CAROLINA LAND & LAKES and JON KNIGHT</p>
3:00 - 3:30 PM	<i>Drinks & Snacks (Sycamore)</i>		
3:30 - 5:00 PM Session V	<p align="center"><u>Water Supply Issues</u></p> <p>Chair: Jef Morgan</p> <p>Using Aquifers For Underground Storage And Recovery Of Potable Water Supplies THOMAS SLUSSER, NCDENR DWQ</p> <p align="center">(Algal Control) JEF MORGAN, PEROXYGEN SOLUTIONS</p> <p>A Novel Approach to Coliform Reduction in a Small Water Supply Watershed BILL FRAZIER, CITY OF HIGH POINT</p>	<p align="center"><u>Coastal Watershed Management</u></p> <p>Chair: Todd Miller</p> <p align="center">Lockwood Folly TMDL MELISSA RUIZ, STANTEC</p> <div align="center">  <p>Under development</p> </div>	<p align="center"><u>Watershed Restoration: The Lake Rhodhiss Story Part 2</u></p> <p>Chair: Paul Clark</p> <p align="center">Local Perspective JEFF MORSE, TOWN OF VALDESE</p> <p>Muddy Creek Subwatershed EQUINOX</p> <p>Restoration Efforts in the Lower Creek Watershed ANDREA LESLIE, NC DENR ECOSYSTEM ENHANCEMENT PROGRAM</p>
5:30 - 6:30 PM	<i>NLCMS Member Meeting – Sycamore</i> <i>Hospitality Room open at 8 PM.</i>		

Friday May 7, 2010

7:00 - 10:00 AM	<i>Registration - Sycamore Lobby</i>		
7:30 - 8:30 AM	<i>Drinks & Snacks (Sycamore)- Hotel guests get free full continental breakfast</i>		
Closing Sessions	TECHNICAL	WATERSHED MANAGEMENT	WATER QUALITY
8:30 - 10:00 AM Session VI	<p align="center"><u>The Future of Mitigation in NC: A Panel Discussion</u></p> <p>Chair: Brad Fairley</p> <p>NCEEP Compliance BILL GILMORE, NCEEP</p> <p>NC Environmental Restoration Association MICHAEL O'ROURKE</p> <p>A Municipal Perspective TBA</p>	<p align="center"><u>Dam Removal</u></p> <p>Chair: Lynette Batt</p> <p>Removal of the Buckhorn Generating Facility NATHAN JEAN, STANTEC</p> <p>Dillsboro Dam Removal SCOTT FLETCHER, STANTEC</p> <p>Removal of the Steeles Mill Dam LYNETTE BATT, AMERICAN RIVERS</p>	<p align="center"><u>Climate Change Initiatives: Panel Discussion</u></p> <p>Chair: Dianne Reid</p> <p>Global Climate Models JON BUTCHER, TETRA TECH</p> <p>State Environmental Initiatives NCDENR</p> <p>NGO Initiatives CONSERVATION GROUP</p>
10:00 - 10:30 AM	<i>Drinks & Snacks (Sycamore)</i>		
10:00 - NOON	<i>Exhibitor Breakdown</i>		
10:30 - NOON Session VII	<p align="center"><u>Stream Restoration</u></p> <p>Chair: Brad Fairley</p> <div align="center">  <p>Under development</p> </div>	<p align="center"><u>Funding & Grants: Mini Workshop</u></p> <p>Chair: Dianne Reid</p> <p align="center">Opportunity to find out more about grants & funding, tips on preparing proposals & filling out forms. Question and answer period.</p>	<p align="center"><u>Local Initiatives</u></p> <p>Chair: Bill Frazier</p> <p align="center">(Cove Keepers) DAVID MERRIMON, CATAWBA RIVERKEEPER (invited)</p> <p>NC Wildlife Green Growth JACQUALYN WALLACE, NCWRC</p> <p>Little Tennessee "Fishometer" JENNY SANDERS, LITTLE TENNESSEE WATERSHED ASSOCIATION (invited)</p>
NOON - 1:00 PM	<i>Box Lunch – Adjourn</i>		