

10th Annual Virginia Water Conference '97
March 9-11, 1997 - Sheraton Inn
Fredericksburg, VA

Program

Sunday PM, March 9

Exhibitor Set Up: 2:00 pm

Registration/Check In: 4:00 pm to 7:00 pm

VLWA Board Meeting: 4:00 pm

Monday AM, March 10

Registration/Check In: 7:00 am - 8:00 am

Conference Kickoff: 8:00 am: "Welcome and Introductions" - Mr. William Norris, President, VLWA

Welcoming Address - "The National Perspectives on Lakes and Watersheds," Dr. Chris Holdren, President of North American Lake Management Society. Dr. Holdren has over 20 years experience in lake and watershed management with particular expertise in water and sediment chemistry and lake eutrophication. His research and consulting background includes the management of diagnostic studies and restoration projects for lakes and watersheds in many states.

First Event: 90-Minute Concurrent Sessions: A.1 and B.1 - 8:30-10:00 a.m.

A.1: Estimation of Water Quality Loadings; Richard Dameron, DCR, Moderator

- ***Acid Runoff from Urban Development on Quantico Slate***, by Adam Crist, Stafford County Department of Code Administration
- ***Assessing, Controlling and Predicting Urban Non-point Source Pollution***, by Kimberly (Kacie) Hodges, Anderson and Associates
- ***Stormwater Discharge from a Marine Drydock: Monitoring and Model Development***, by Gary C. Schafran, Ph.D., A. Osman Akan, Peter Pommerenk, Old Dominion University
- ***Urban Turf Nutrient Study***, by Paul Gordon, Lake Barcroft Watershed Improvement District
- ***Fecal Coliforms and Tributaries Nutrient Input to Smith Mountain Lake in 1995 and 1996***, by

B.1: The Local Slant on Lakes and Watersheds - Case Studies; Stuart Finley, Lake Barcroft Watershed Improvement District, Moderator

- ***Partnerships for Stream Restoration in the Chickahominy Watershed***, by Sarah Richardson, Alliance for the Chesapeake Bay, Margot W. Garcia, Virginia Commonwealth University
- ***Ten Years of Volunteer Monitoring on Smith Mountain Lake***, by David Johnson, Ph.D., Carolyn L. Thomas, Ph.D., Ferrum College
- ***Who's Against Water Safety?***, by Bob Halstead, Smith Mountain Lake Association
- ***Citizen Involvement in Lake Management Decisions***, by John Aker, Lake Monticello Lake Committee

Carolyn Thomas, Ph.D., David M. Johnson,
Ph.D., Ferrum College

- **Permitting....Friend or Foe?**, by Stuart Finley,
Lake Barcroft Watershed Improvement District

Break/Coffee in Exhibit Area

Second Event: 90-Minute Concurrent Sessions: A.2 and B.2 - 10:30-12:00 Noon

A.2: The Latest on Best Management Practices; Lamont
Curtis, URS, Greiner, Moderator

B.2: Biological Issues with Lakes and Watersheds;
Martin Firth, Lake Services, Moderator

- **Urban Drainage Infrastructure Retrofit**, by A. Tamim Atayee, P.E., Ken Young, Ph.D., P.E., GKY & Associates, Inc.
- **The Nonstructural Urban BMP Handbook: Practical Guidance for Designing and Quantifying Benefits of Nonstructural BMPs**, by David Bulova and Don Waye, Northern Virginia Planning District Commission
- **A Summary Report on Field Test of Stormwater Best Management Practices**, by Shaw L. Yu, Ph.D., Robert J. Kaighn, Jr., Andrew Earles, University of Virginia
- **Evaluation of Design Rainfall Distribution for Stormwater Detention Facility Design**, by Michael J. Latham, Michael Baker, Jr., Inc.
- **Application of a Carbon/Sand Filter for Stormwater Pollution Removal in an Ultra-Urban Environment**, by Lamont Curtis, P.E., James Ketterman, URS Greiner, Inc.
- **Grass Carp: Integral Part of Aquatic Weed Control**, by Brian Nerrie, Ph.D., Virginia Cooperative Extension, Virginia State University
- **Biological Monitoring Efforts on Swift Creek Reservoir and its Watershed**, by W. Weedon Cloe, Carmen F. Hein-Harmon, Stephanie R. Feaser, George Duval, Chesterfield County Department of Utilities
- **Creation, Management, and Research on Lakes and Ponds at Patuxent Research Refuge**, by Matthew C. Perry, Ph.D., Patuxent Wildlife Research Center
- **Control of the Nuisance Floating Plant Common Duckweed (*Lemna minor*)**, by Ephraim R. Seidman, Aquatic Services, Inc.
- **Fish Function in a Freshwater Fen (Marsh)**, by Barry W. Fox, Virginia Cooperative Extension, Virginia State University

Monday PM, March 10

Luncheon, Keynote Speaker- "Watersheds and Citizens Involvement," Ms. Louise Wise, Esq., Acting Deputy Director of EPA's Office of Wetlands, Oceans, and Watersheds.

- Ms. Wise's office is responsible for EPA's nonpoint, monitoring, assessment, marine or coastal, and wetlands programs. Prior to joining OWOW, Ms. Wise served in various positions including Deputy Director of EPA's Marine Office, Director of EPA's Underground Storage Tanks Standards Division, Special Assistant to EPA's Administrator Lee Thomas, and as an attorney with EPA's Office of General Counsel.

Third Event: 90-Minute Concurrent Sessions: A.3 and B.3 - 1:30-3:00 pm

A.3: Watershed Water Quality Management; Larry

B.3: Stormwater Management - A Modern Municipal

Butler, Ashburn HOA, Moderator

- **Management of Source Quality in a Watershed-Reservoir System Subjected to Competing Uses**, by Adil Godrej, P.E., Ph.D., Tom Grizzard, P.E., Ph.D., Virginia Polytechnic Institute and State University
- **The Tar-Pamlico Experience: Innovative Approaches to Water Quality Management**, by John Hall, Hall and Associates
- **Occoquan Watershed and Reservoir Response Water Quality Computer Models**, by Normand Goulet, Don Waye, Northern Virginia Planning District Commission, Stuart Stein, P.E., Traci Kammer, GKY and Associates, Inc.
- **The Greening of the Safe Drinking Water Act: the Rise of Source Protection as a Quality Assurance Strategy**, by Will E. Cox, Ph.D., Virginia Polytechnic Institute and State University
- **Watershed Modeling of Chesapeake Bay**, by Arthur J. Butt, Ph.D., Chesapeake Bay Office of the Department of Environmental Quality

Issue; Stuart Stein, GKY & Associates, Inc., Moderator

- **Stormwater Management Through User Fee - A National Perspective**, by Tom George, P.E., Camp Dresser & McKee
- **Development of a Comprehensive Stormwater Improvement Plan for the Norfolk Naval Base**, by Aaron B. Small, Robert E. Cosby, III, Michael Baker, Jr., Inc.,
- **Summary Presentation of the City of Virginia Beach Comprehensive Storm Water Management Program**, by Mark Johnson, City of Virginia Beach Utilities Department
- **Evaluation of Urban NPS Pollution Control Alternatives: Structural Controls and Pollution Prevention**, by David Bulova, Costal & Chesapeake Bay Program Manager, Don Waye, Northern Virginia Planning District Commission
- **Central Park, Fredericksburg, Virginia**, by Mike Naggs, City of Fredericksburg Department of Code Compliance, Kevin Deloye, P.E., Vanesse Hangen Brustlin, Inc.

Break/Coffee in Exhibit Area

Fourth Event: 90-Minute Concurrent Sessions: A.4 and B.4 - 3:30-5:00 pm

A.4: Drinking Water Supply Planning and Engineering;
David Rosenthal, City of Norfolk, Moderator

- **Drinking Source Water Watershed Optimization Modeling to Enhance Yield**, by Kamal Saffarinia, Ph.D., Ken Young, Ph.D., P.E., GKY & Associates, Inc.
- **Water Supply Plan for the York-James Peninsula**, by Don Rice, Newport News Waterworks
- **Hampton Roads Water Efficiency Team (HRWET) - A Regional Approach to Water Conservation Education**, by Jeryl Rose Phillips, Hampton Roads Planning District Commission
- **Water Supply Watershed Management Principles for Hampton Roads**, by Eric Walberg, Hampton Roads Planning District Commission
- **Limitation on Recharge to Coastal Plain Aquifers by River Incision in the Fall Zone Near**

B.4: Regional Case Studies and Commentary to Lake and Watershed Issues; Ed Beadenkopf, Dewberry & Davis,
Moderator

- **Roanoke Valley Flood Hazard Mitigation - A Regional Search for Solutions**, by Timothy Lormand, P.E., Ed Beadenkopf, P.E., Dewberry & Davis
- **Onsite Sewage Treatment for Lakeshore Environments: Recent Developments in Virginia and Across the U.S. to Solve Bacterial Contamination**, by Patricia Miller, Ph.D., Virginia Department of Health
- **In Suspect Watershed Terrain - How Effective is Watershed Management?**, by David J. Hirschman, Albemarle County Department of Engineering
- **Regional Solution to Maximum Use of Existing and New Impoundments**, by Everett Skipper,

Richmond, VA - A Regional Constraint, by
Edwin R. McFarland, U.S. Geological Survey

P.E., Gannet Flemming, Inc.

- **Operational Decision Making in Drought Management**, V. K. Lohani, Ph.D., G. V. Loganathan, Ph.D., Virginia Polytechnic Institute and State University

Reception in Exhibit Area: 5:00 to 6:30 pm (cash bar)

Evening Activities: VLWA Membership Meeting: 7:00 pm

Tuesday AM, March 11

Fifth Event: 90-Minute Concurrent Sessions: A.5 and B.5 - 8:30-10:00 am

A.5: Advanced Solutions - Aeration, Radar and Sampling;
Tamim Younos, Virginia Water Center, Moderator

- **Water Flow Rate and Oxygen Transfer in a Hypolimnetic Aerator**, by Vickie Burris, John C. Little, Ph.D., Virginia Polytechnic Institute and State University
- **Bubble Dynamics and Oxygen Transfer in a Speece Cone**, by Dan McGinnis, John C. Little, Ph.D., Virginia Polytechnic Institute and State University
- **Using NEXRAD in Hydrologic Analyses**, by Patti Sexton, Michael Baker, Jr., Inc.
- **Using NEXRAD Weather Radar to Re-construct Timber Lake Dam Failure**, by G. V. Loganathan, Ph.D., J. Warner, R. J. Kane, M. Gillen, K. Kostura, Virginia Polytechnic Institute and State University
- **Quality Assurance/Quality Control Protocol for Sampling of Nonpoint Source Runoff**, by Tamim Younos, Ph.D., Virginia Water Resources Research Center, S. Mostaghimi, C. I. Newell, P. W. McClellan, Virginia Polytechnic Institute and State University

B.5: Policy and Legal Issues to Aid Planners and Managers; Leonard Shabman, Virginia Water Center, Moderator

- **What's New With Virginia's Waters (Over the Last Fifty Years)**, by Hugh Gildea, P.E.
- **Lakes and Residential Subdivisions: Legal Issues for Developers and Communities**, by Ken Chadwick, Esq., Chadwick, Washington, Olters, Moriarty and Lynn, P.C.
- **Water Quality Policy and Planning for Virginia: the 1997 Agenda - Agency Perspectives on General Assembly Actions - A Roundtable**, by Leonard Shabman, Virginia Water Resources Research Center, Al Pollock, Department of Environmental Quality, Mark Bennett, Department of Conservation and Recreation

Break/Coffee in Exhibit Area

Sixth Event: 90-Minute Concurrent Sessions: A.6 and B.6 - 10:30-12:00 pm

A.6: Hydraulics, Bridge Scour and G.I.S.; David Kibler,

B.6: Dam Safety - Programs, Planning and Design;

Virginia Polytechnic Institute and State University,
Moderator

- ***Ten Years of Computerization for Design Software - HYDRAIN***, by A. Tamim Atayee, P.E., Ken Young, Ph.D., P.E., GKY & Associates, Inc.
- ***Scour Monitoring and Instrumentation***, by Abigail Ginsberg, P.E., Federal Highway Administration
- ***HEC-RAS: A New Generation of River Modeling***, by Cory Rathman, Dewberry & Davis
- ***A GIS Approach to Sewer System Design***, by Newland Agbenowosi, Ph.D., Richard Greene, Ph.D., G. V. Loganathan, Ph.D., Virginia Polytechnic Institute and State University
- ***Integrated Hydrological and Ecological Based Riparian Survey Methods for Use on Large Watersheds into a GIS Context***, Justin Babendreier, D. Gallagher, D. S. Cherry, Virginia Polytechnic Institute and State University

Robert Roop, Timmons, Moderator

- ***Virginia's Program for Safe Dams***, by Joe Haugh, P.E., Virginia Department of Conservation and Recreation
- ***Erosion Protection for Emergency Spillways***, by Marianne Kiernan, Michael Baker, Jr., Inc.
- ***Setting Sights on Sedimentation Problems through a Reservoir Sedimentation Survey***, by S. Samuel Lin, Ph.D., Virginia Dam Safety Program
- ***Restoration of Principal Spillway and Outfall for Pond #3 Sandy Hill Creative Disposal Site***, by Neil Weinstein, TetraTech, Joseph Sesil, Rust Environment and Infrastructure
- ***Overtopping Protection for Embankment Dams Using Roller Compacted Concrete***, Eric J. Ditchey, P.E., Schnabel Engineering Associates

Tuesday PM, March 11

Luncheon -Keynote Speaker- "University Contributions to Economic Development with Focus Upon Lakes and Watersheds," Dr. Judy Pearson, Director of Virginia Tech's Northern Virginia Graduate Center.

- Dr. Pearson's programs serve more than 1,500 students pursuing master's and doctoral programs at a new state-of-the-art facility. Dr. Pearson joined Virginia Tech in 1995 after serving as professor and director of Graduate Studies and Research in the School of Interpersonal Communication at Ohio University in Athens.

Best Maintained Dams Awards and Recognition - Mr. Robert Roop, P.E., Timmons, Richmond, VA

Fredericksburg Area Field Trips (1:30 pm) - Sign up at Registration

- Civil War Tour *or*
- Motts Run Dam and Water Treatment Plant