SUNDAY, MARCH 6, 2011

1:30 – 5:00 pm Exhibitors’ Display Set Up (Exhibitors’ Area)
2:00 – 5:00 pm Registration (Conference Reception Desk)
4:00 – 5:00 pm Meeting of VLWA Board of Directors
5:30 – 7:30 pm Exhibitor and Early Registrant’s Reception

MONDAY, MARCH 7, 2011

7:00 – 8:00 am Registration and Check-In (Conference Reception Desk)
7:30 am Coffee and Pastries
8:00 – 9:00 am Welcome to the Conference, Stuart Stein, Conference Chair and President of VLWA

Keynote Address Douglas W. Domenech, Secretary of Natural Resources, Commonwealth of Virginia

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<th>Track A–Parlor A</th>
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<th>Track C–New River</th>
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9:15 – 10:30 First Concurrent Sessions

Session 1A • Stormwater • Moderator – Seshadri Iyer, URS Corp.
(2) Rain Gauge Network in a Coastal Virginia Community – Jeff Waller, PE, City of VA Beach, Dept. of Public Works
(3) Technology Revitalizes Historic Base – Jamie Weist, PE, Kimley-Horn and Associates, Inc.
(4) Non-Importance of Inflow Hydrographs Under Controlled Outflow – Seshadri Iyer, PhD, PE, CFM, URS Corp.

Session 1B • Dam Safety 1 • Moderator – Robert Bennett, DCR
(1) An Owner Reflects on Compliance with the 2008 Amended Dam Safety Regulations – Steve Shenk, PE, City of Lynchburg, Utilities Dept.
(2) Impact of Virginia Dam Safety Regulations on the City of Norfolk’s in Town Reservoirs – Adrienne Shaner, EIT, Gannett Fleming, Inc.
(3) Lessons and Observations from DCR Dam Safety Inventory in Pittsylvania Co, VA – Joe Rogers, PE, DCR, Office of Dam Safety

Session 1C • TMDLs 1 • Moderator – Deva Borah, Woolpert
(1) Stormwater Quality Devices for Removing Sediments, Nutrients, and Hydrocarbons – Edward Seagle, PE, Woolpert, Inc.
(2) Evaluation of a Nutrient TMDL in an Upper Piedmont River in South Carolina – Debabrata Sahoo, PhD, EIT, Woolpert, Inc.
(3) Dynamic Watershed Simulation Model with Bank Erosion for Developing Sediment TMDL – Deva Borah, PhD, PE, Woolpert, Inc.
(4) The Chesapeake Bay TMDL and Watershed Implementation Plans: Education Virginia’s Stakeholders – Brian Benham, VA Tech, Dept. of Biological Systems Engineering
Session 1D • Watershed Management 1 • Moderator – Fred Wilkins, Fairfax Co. SWPD
(1) Stormwater Improvement Study for the Putnam County MS4 Coordination Committee – Richard Franzetti, PE, BCEE, LEED AP, Malcolm Pirnie, Inc.
(2) James City County: Comprehensive Watershed Management and Stream Restoration for Nutrient Reduction – Barry Moses, PE, James City Co., Daniel Proctor, PE, Williamsburg Environmental Group, Inc.
(3) A Sub-watershed Partnership Approach: Rhetoric or Reality? – Fred Wilkins, EIT, Chad Crawford, PE, Fairfax County Stormwater Planning Division

Session 1E • Floodplain Management 1 • Moderator – Shane Parson, URS Corp.
(1) Bridge Scour Using GIS Integrated Storm Surge Hydrodynamic Modeling, Lesner Bridge Replacement Project, VA Beach, VA, Bridge Scour, New Software and Emerging Science Application (Part 1) – Gamal Hassan, HWR, David Bradshaw, Khalid Hussein, Clark Nexsen Architecture & Engineers
(2) Bridge Scour Using GIS Integrated Storm Surge Hydrodynamic Modeling, Lesner Bridge Replacement Project, VA Beach, VA, Bridge Scour, New Software and Emerging Science Application (Part 2) – David Bradshaw, Khalid Hussein, Clark Nexsen Architecture & Engineers, Gamal Hassan, HWR
(3) Developing Velocity Distribution for Overbank Areas – Marcel Giovanni Prieto, CFM, Venkata Nimmala, EIT, CFM, Mathini Sreetharan, PhD, PE, CFM, Dewberry
(4) Flood Models and the Chesapeake Bay TMDL – John Paine, PE, PH, CFM, URS Corporation

10:30 – 10:45 Coffee Break
10:45 – 12:00 Second Concurrent Sessions

Session 2A • Stormwater BMPs 1 • Moderator – Mindy Ruby, Filterra
(1) Selecting Structural Stormwater BMPs for the Cost Effective Removal of Specific Non-Point Source Pollutants – Tim MacVittie, Jeff Herr, PE, D.WRE, Brown and Caldwell
(2) Arlington County Ballston Pond Retrofit Project – William Springer, PE, Rummel, Klepper & Kahl, LLP
(3) Filterra® Bioretention Systems: Advancing Conventional Stormwater Treatment with High Flow Rate Bioretention Design – Mindy Ruby, Filterra Bioretention Systems

Session 2B • Dam Safety 2 • Moderator – Greg Paxson, Schnabel Engineering
(1) A Comparison Regarding the Use of Downstream Lateral In-flows in Performing a Dam Failure Analysis – Michael Claud, PE, Timmons Group
(2) Dam Breach Analysis, Hazard Classification, and Inundation One Mapping: What Your Consultant is Doing to Earn Their Fees – Shannon Cotulla, PE, HRT & Proffitt, Inc.
(4) Reduced Design Floods for Dams – What are the Savings? – Greg Paxson, PE, Schnabel Engineering

Session 2C • TMDLs 2 • Moderator – Douglas Moseley, GKY & Associates, Inc.
(1) Engaging in TMDL Development and Implementation – Jennifer Tribo, Hampton Roads Planning District Commission
(2) Chesapeake Bay TMDL: A Roadmap for Documenting Reasonable Assurance in Virginia – Tom Singleton, Chad Smith, Dave Tomasko, PBS&J

Session 2D • Watershed Management 2 • Moderator – Courtney Reijo, Virginia Tech
(1) Cost-Effectiveness of Pollutant Removal Strategies for Fairfax County, VA – Case Study: Pohick Creek – Kate Bennett, Fairfax County Dept. of Public Works and Environmental Services, Dan Medina, PhD, PE, D.WRE, PBS&J
(2) Indirect and Cumulative Impacts Analysis (Watershed Study) – Daren Pait, PE, CFM, Kimley-Horn and Associates, Inc.
(3) A Geographical Information System (GIS)-Based Assessment of Riparian Buffer Topography in the Chesapeake Bay Water: Implications for Nitrogen Removal, Courtney Reijo, Virginia Tech
Session 2E • Floodplain Management 2 • Moderator – John Paine, URS Corp.
(1) Flood Hazard Evaluation - Stream Perspective vs. Watershed Perspective – Zhida Song-James, Michael Baker Jr., Inc.
(2) Overview of FEMA Risk MAP Non-Regulatory Datasets and Products – Shane Parson, PE, CFM, URS Corp.
(3) Dam Failure Impact Classes of Virginia Dams – Kaveh Zomorodi, PhD, PE, CFM, Dewberry
(4) The NFIP in Virginia and the Chesapeake Bay Preservation Act, an Unintentional Cooperative Effort, Charley Banks, CFM, DCR, Division of Dam Safety and Floodplain Management

12:15 – 1:15 Luncheon

Keynote Address - David A. Johnson, Director of the Department of Conservation and Recreation

MONDAY AFTERNOON, MARCH 7, 2011

1:30 – 2:45 PM Third Concurrent Sessions
Session 3A • Stormwater BMPs 2 • Moderator – Rod Frederick, Michael Baker Jr., Inc.
(1) Chemical Treatment of Stormwater-20 Years of Advancements – Jeff Herr, PE, D.WTR, Brown and Caldwell
(2) Construction of BMPs on City Owned Property, Esther Dornin, City of Virginia Beach
(3) EISA Section 438 Stormwater Guidance Overview, Charlene Harper, PE, LEED AP, Timmons Group
(4) Protection Urban Lakes from Urban Pollution, Rod Frederick, PE, D.WRE, F.ASCE, Michael Baker Jr., Inc.

Session 3B • Dam Safety 3 • Moderator – Lisa Cahill, Watershed Services, Inc.
(1) Dams, Monitoring Flows in Emergency Spillways – Amanda Pennington, VA DCR, Division of Dam Safety & Floodplain Management
(2) Removal of Bluebird Dam at the U.S. Dept. of the Interior, National Park Services Rocky Mountain National Park, CO – Charles Karpowicz, PE, Water Resources Management (ret)
(3) Renovating an 100-Year Old Dam to Serve Another Century – Jamie Morris, Western VA Water Authority, David Henderson, AECOM Technical Services, Inc.

Session 3C • Ecological Restoration • Moderator – Curtis Hickman, Kerr Environmental Svs
(1) Ecological Effects of Flood Control Dams in Virginia’s Ridge and Valley Ecoregion – Justín Reiske, Emily Robinson, Robert N. Brent, PhD, James Madison University
(2) Regenerative Conveyance Systems-Applying Coastal Plain Outfalls in the Piedmont Region) – Ron Tuttle, Catherine Torgersen, Fairfax Co.
(3) Four Decades of Stream Restoration: Where Were We-Where Are We-Where Are We Going? – Larry Mohn, VA Dept. of Games & Inland Fisheries

Session 3D • Watershed Management 3 • Moderator – Ketchem, NRCS
(1) Comprehensive Watershed Planning for Nutrient Reduction in Ellerbe Creek-City of Durham, NC – Sandi Wilbur, PE, City of Durham Stormwater Services Division
(2) Evaluating Site Selection, Monitoring Guidelines and Alternative Substrates for Oyster Reef Restoration – Stephanie Long, Erika Seelenbinder, Jae Yoon, Civil and Environmental Engineering, Old Dominion University
(3) The Use of Rapid Watershed Assessments to Evaluate the Resource Conditions in the Shenandoah River Basin – Alica Ketchem, PE, USDA Natural Resources Conservation Service

Session 3E • Floodplain Management 3 • Moderator – Jeff Smith, Accenture
(1) The ASFPM Foundation – Grant Smith, Dewberry
(2) Rethinking the NFIP – Richard Sobota, FEMA Region III
(3) The Perfect Storm: Story of Survival and Triumph – Gayle Hicks, City of Hampton, Leigh Morgan Chapman, Salters Creek Consulting, Inc.
2:45 – 3:15 Coffee Break

3:15 – 4:30 PM Fourth Concurrent Sessions

**Session 4A** • Stormwater BMPs 3 • Moderator – Shelly Frie, CH2M HILL
(1) Putting Stimulus Dollars to Work – A Public Private Partnership Using Green Infrastructure to Eliminate CSOs in Lynchburg, VA – G. Keith Thompson, Jr., PE, LEED AP, Wiley/Wilson, Jeff Scarano, PE, City of Lynchburg
(2) Utilizing Sorptive Media to Enhance Green Infrastructure Practices – Bob Gallucci, Imbrium Systems
(3) Low Impact Development and Rainwater Harvesting Strategies for the Urban Environment – Derek Berg, CONTECH Construction Products
(4) LID Retrofit Nutrient Reduction Accounting Using the Runoff Reduction Method – Shelly Frie, Howard Lusk, CH2M HILL

**Session 4B** • Dam Safety 4 • Moderator – Thomas Roberts, DCR
(1) Alternatives for Increasing a Dam’s Conveyance Capacity – Robert Kline, Jr., PE, Gannett Fleming, Inc.
(2) A 3-D Model is Worth a Thousand Cross Sections – Some Examples of Visualization for Analysis and Reporting – Laura Shearin, EIT, Schnabel Engineering
(3) Landscaping Solutions for Embankment Dams – Bryan Layman, PE, CPSS, AOSE, LEED® AP, Joseph Melburger, PE, CPG, LEED® AP, ECS Mid-Atlantic, LLC

**Session 4C** • Water Quality 1 • Moderator – Steve McLaughlin, City of VA Beach
(2) Effectiveness of Adaptive Streambank Fencing at Reducing In-Stream E.coli Loads – Peter O’Donnell, Washington and Lee University
(3) Virginia Beach Use of a Rural/Agricultural BMP – Horse Manure and Shavings Composting Facility – Steve McLaughlin, City of VA Beach, Dept. of Public Works
(4) Realization of a New Vessel Sewage Pumpout Facility in Coastal Virginia – Bill Johnston, PE, City of VA Beach, Dept. of Public Works

**Session 4D** • Lake Maintenance 1 • Moderator – Nicki Bellezza, Reston Association
(1) Repairing Leaks in Earthen Dams for Engineers and Sophisticated Dam Owners – Scott Cahill, Watershed Services, Inc.
(2) Use of Siphons for Pond Drains – Alex Robinson, EIT, Froehling & Robertson, Inc.
(3) Design Matrix to Guide Shoreline Stabilization Measures for Lakes in Northern Virginia – Edward Beadenkopf, PE, CFM, URS Corporation
(4) Lake Shoreline Protection in Reston, VA – Nicki Bellezza, Reston Association

**Session 4E** • Floodplain Management 4 • Moderator – David Preusch, Michael Baker Jr., Inc.
(1) Establishing Statewide Flood Observation & Warning Capability – Mark Slauder, CFM, VA Dept. of Emergency Management
(2) Mitigation Plan Update: An Opportunity to Mitigate Repetitive Loss Properties – Union County, PA Case Study – Jen Sparenberg, CFM, Shubha Shrivastava, AICP, CFM, URS Corporation
(3) Rapid Development of a Flood Acquisition Project – Decisions and Opportunities – Necolle Maccherone, Drew Whitehair, Michael Baker Jr., Inc.
(4) Use of HAZUS Standard Data for Mitigation Planning, Implications under Risk MAP and for Communities – Drew Whitehair, Necolle Maccherone, Michael Baker Jr., Inc.
MONDAY EVENING, MARCH 7, 2011

4:45 – 6:00 PM Reception
6:00 – 6:30 PM Virginia Lakes and Watersheds Association Business Meeting

TUESDAY MORNING, MARCH 8, 2011

8:30 – 9:45 AM Fifth Concurrent Sessions
Session 5A • Stormwater in Tidewater • Moderator – Lewis White, Parsons Brinckerhoff
(1) Wrath of a Nor’ easter: Remedies for Lynnhaven Inlet Neighborhood Flooding – Melissa Pritchard, EIT, LEED AP, Parsons Brinckerhoff
(2) Cleaning the Pipes and Clearing the Air: A Study to Determine if a Storm Sewer System is a Significant Source of Fecal Indicator Bacteria in a Coastal Suburban Neighborhood – Lisa Bass, Parsons Brinckerhoff
(3) Innovative Methods for Nutrient and Sediment Removal – Lewis White, Lisa Bass, Parsons Brinckerhoff

Session 5B • Dam Safety 5 • Moderator – Steve Snell, DCR
(1) Low Level Drain Options for Existing Dams – Austen Bander, Cameron Smith, Bander Smith, LLC
(2) Hazards and Public Safety at Low-head Dams – Dr. Bruce Tschantz, PE, University of Tennessee, Knoxville
(3) Solutions for Improving Fish Passage and Public Safety at Low Head Dams – Paul Schweiger, PE, Gannett Fleming, Inc.
(4) HOA Tax Districts for Dam Safety Repairs – Steve Snell, PE, VA DCR, Dam Safety & Floodplain Management

Session 5C • Water Quality 2 • Moderator – Carolyn Thomas, Ferrum College
(1) Numerical Dispersive Flux Modeling Study for RO Brine Waste Discharge under Tidal Currents – Alireza Shahvari, Ruby Damalie, Jae Yoon, Civil and Environmental Engineering, Old Dominion University
(2) Predicting Effect of a Dam Raise Project on Water Quality – Ben Martin, Dr. Li Ding, Flow Science, Inc.
(3) The Aging (eutrophication) of Reservoirs: A Comparison of Smith Mountain Lake and Claytor Lake Water Quality? – Carolyn Thomas, Delia Heck, Ferrum College

Session 5D • Lake Maintenance 2 • Moderator – Paul Farrell, EnviroSolutions, Inc.
(1) From Unusual and Unique Problems Come Simply But Extraordinary Solutions – Mark O’Sullivan, Godwin Pumps
(2) Barton Dam Lake Dredging Project – Jennifer Solakan, PE, URS, Matthew Meyers, PE, Fairfax County Dept. of Public Works and Environmental Services
(3) Composting Potential of Lake Dredge Material – Paul Farrell, PE, EnviroSolutions, Inc.

Session 5E • Floodplain Management 5 • Moderator – Mark Slauger, VDEM
(1) Basic Concepts and Review Steps for Reviewing Advanced Interconnected Channel and Pond Routing (ICPR) model for LOMR Process – Ekta Amar, CFM, EIT, Leonard Jackson Associates, Mathini Sreetharan, PhD, PE, CFM, Dewberry
(2) Flood Hazard Mapping for Levee Impacted Areas – M. Tariq Makhdoom, PhD., CFM, Mark Hoskins, PE, CFM, Dewberry
(3) Floodplain Analyses – Selection of Appropriate Reach Routing Method for Watershed Models – Tamrat Bedane, CFM, Srikanth Koka, CFM, Dewberry
(4) Inter-basin Flow – Developing Flood Elevations and Floodways for an Urban Floodplain – Cheryl Hannan, PE, CFM, Dewberry, Ekta Amar, DFM, Leonard Jackson Associates

9:45 – 10:15 Coffee Break
10:15 – 11:30  Sixth Concurrent Sessions

Session 6A • Stormwater Infrastructure • Moderator – Amelia Wehunt, Timmons Group
(1) The GIS Database Development & Inventory of Existing Stormwater Infrastructure in Three Flood Prone Watersheds – David Wilmoth, PE, Aislinn Creel, PE, LEED AP, Michael Claud, PE, Timmons Group
(2) Use of Watershed Modeling to Identify and Enhance Urban Retrofit Opportunities – Aislinn Creel, PE, LEED AP, Andrew Gould, PE, Timmons Group
(3) The City of Richmond Green Alley Program – Amelia Wehunt, EIT, Charlene Harper, PE, LEED AP, Timmons Group

Session 6B • Dam Safety 6 • Moderator – Jonathan Pittman, Schnabel Engineering
(1) Alkali-Silica Reactivity at Roanoke Rapids Dam; Investigation, Design and Remedial Construction Challenges – John Cima, PE, Dominion Resources Services, Inc.
(2) Analysis of Articulated Concrete Block (ACB) Systems for Dam Overtopping Protection – Jay Lewis, PE, LS, Wiley/Wilson
(3) New Factor of Safety Methodology for Articulated Concrete Block Design – Jim Nadeau, ACF Environmental
(4) The Use of Cement Modified Soil at Lake Townsend Dam – Jonathan Pittman, PE, Schnabel Engineering

Session 6C • Water Quality 3 • Moderator – Shannon Junior, SOLitude Lake Management
(1) Modeling Nutrients and Algae in Virginia Streams – Clifton Bell, PE, PG, Malcolm Pirnie, Inc.
(2) Assessment of the Mummichog (Fundulus Heteroclitus) as an Indicator of Environmental Contamination – Justin Turner, Kelvin Coles, Jae Yoon, Civil and Environmental Engineering, Old Dominion University
(3) New Regulations for Aquatic Systems: Virginia Pollutant Discharge Elimination System (VPDES) Permits for Discharges Resulting from the Application of Pesticides to Surface Waters – Shannon Junior, Kevin Tucker, SOLitude Lake Management

Session 6D • Water Supply • Moderator – Harvey Harper, Environmental Research & Design, Inc.
(1) Reclaimed Water to Reclaim the Aquifer: A Case Study on Reducing Groundwater Withdrawals along the Coast – Erica Carter, PE, Kimley-Horn and Associates, Inc.
(2) Modern Rainwater Collection Supplements Potable Water in a Poor Virginia Community – Douglas Phillips, Jr., PE, Southeast Rural Community Assistance Project, Inc.

Session 6E • Floodplain Management 6 • Moderator – Tariq Makhdoom, Dewberry
(1) FEMA’s Preferred Risk Policy (PRP) Eligibility Extension – Mari Radford, FEMA Region III
(2) Flood Hazard Ordinance Review, Compliance, and Adoption (ORCA) System – Katie Lipiecki, RAMPP, Nicole Lick, FEMA Region III, Jeff Smith, Andrew Freese, Accenture
(3) How to make the Community Rating System Work for Your Community – Tom Brett, Amanda Gowans, ISO Inc., Mari Radford, FEMA Region III
(4) The Current Higher Regulatory Standards to the NFIP in Virginia – Alison Meehan, CFM, VA DCR, Division of Dam Safety and Floodplain Management

11:45 – 1:00 PM Luncheon

Keynote Address:  Mark Crowell, FEMA – “Impact of Climate Change on the NFIP”
This study was recommended by a 2007 Government Accountability Office report titled “Climate Change - Financial Risks to Federal and Private Insurers in Coming Decades are Potentially Significant.” The report recommends that FEMA analyze the potential long-term implications of climate change on the NFIP and report the findings to Congress.