

Seventh Annual Bay-Wide Stormwater Retreat
 April 7 to 9, 2015
 National Conservation Training Center
 Shepherdstown, WV

RETREAT AGENDA AT A GLANCE		
10:00 - 10:15	Registration and Orientation	Physical Training Center
10:15 - 10:45	Opening Remarks NFWF (EPA/NFWF/ACB)	
10:45 - 12:00	A. NFWF Grantee Speed Dating	
12:00 - 1:15	LUNCH	
1:15 - 2:45	B. Getting the MOST out of it: MS4 Training and Support Room 114 IE	E. Where Are the Urban Nutrients Coming From? Room 201 IE
2:45 - 3:00	BREAK	
3:00 - 4:30	D. Urban BMP Verification Room 114 IE	C. MS4 Lessons Learned Room 201 IE
5:30 - 7:30	DINNER	
7:00	NFWF Reception & Stormies Award	Roosevelt Room
8:30 - 9:00	Opening Remarks (CSN) Room 114 IE	Opening Remarks (CSN) Room 201 IE
9:00 - 10:30	I. NDGI Program Credits Room 114 IE	F. DC Stormwater Showcase Room 201 IE
10:30 - 10:45	BREAK	
10:45 - 12:00	G. Evaluating Proprietary BMPs Room 114 IE	J. Street Sweeping Credits Room 201 IE
12:00 - 1:00	LUNCH	
1:00 - 2:30	H. Industrial Permits & BMPs Room 114 IE	K. Enhanced Bioretention Room 201 IE
2:30 - 5:00	DOWN TIME /CAUCUSES/YOGA	
5:30 - 7:30	DINNER	
7:00	BUBBAs and Stonerollers Awards	Roosevelt Room
8:30 - 8:45	Welcome and Recap	Physical Training Center
8:45 - 10:15	L. Reality Check: What Our Inspectors Are Seeing on the Ground	
10:15 - 10:45	BREAK	
10:45 - 12:00	M. Annual State/EPA Regulatory Outlook	
12:00 - 1:00	BOX LUNCH	
1:00 - 2:30	N. Stormwater and the Elected Official	
2:30 - 2:45	BREAK	
2:45 - 4:00	O. Maximizing MS4 Outreach Efforts	
4:00 - 4:15	Wrap up and Evaluation	

Agenda for 7th Bay-wide Stormwater Retreat

Detailed Agenda: Day 1:

Theme: Shifting to a New Era of Stormwater Accountability

Registration and Orientation (10:00 AM)

Opening Remarks: Welcome and Objectives for the Retreat (10:15 – 10:45 AM)

- Jake Reilly, Chesapeake Bay Program Director, National Fish and Wildlife Foundation
- Al Todd, Alliance for the Chesapeake Bay
- Nick DiPasquale, U.S. EPA, Chesapeake Bay Program

A. NFWF Grantee Speed Dating (10:45 to 12:00)

Moderator: Elizabeth Nellums, National Fish and Wildlife Foundation

New NFWF grantees from class of 2014 have 3 minutes to introduce themselves and their new projects. Grantees from prior classes will also get a chance to introduce themselves and welcome the new grantees.

LUNCH (12:00 – 1:15)

Breakout B. Getting the MOST out of it: Aligning MS4 Training and Technical Support (1:15 to 2:45 PM) Moderator: Lou Etgen, Alliance for the Chesapeake Bay

This session will cover the various training initiatives occurring across the Bay watershed. It will include an update on some recent NFWF funded training initiatives, an overview of the training resources across the watershed for MS4s provided by the States and other partners, and finish up with an overview of the Environmental Finance Center (EFC)'s new Municipal On-line Stormwater Tool (MOST) -- a long term, sustainable website clearinghouse devoted to training MS4s on permit compliance, stormwater financing and green infrastructure. Audience members are encouraged to provide input on specific stormwater training needs in order to ensure better alignment of funds and resources going forward. The purpose of this discussion is to have a discussion among Stormwater Partners on the highest priority training needs in the watershed.

- Jake Reilly, National Fish and Wildlife Foundation
- Katherine Antos, U.S. EPA, Chesapeake Bay Program
- JoAnne Throwe, University of Maryland, Environmental Finance Center
- Medessa Burian, University of Maryland, Environmental Finance Center
- Neil Weinstein, Low Impact Development Center

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Breakout E: Where Are The Nutrients Really Coming From? (1:15 to 2:45 PM).

Moderator: Jeremy Hanson, Virginia Tech

What we know (and don't know) about where nutrients come from in the urban landscape, based on a recent scientific review. This session will include a panel to discuss their potential implications for stormwater managers, land planners and Bay modelers. The audience will also get an advance look at how urban land will be simulated in the next version of the Watershed Model.

- Tom Schueler, Chesapeake Stormwater Network
- David Sample, Virginia Tech
- Bill Stack, Center for Watershed Protection, Inc.
- Karl Berger, MWCOG, Co--Chair, Land Use Work Group

BREAK 2:45 to 3:00

Breakout C: MS4 Lessons Learned (3:00 to 4:30 PM).

Moderator: Dave Hirschman, Center for Watershed Protection

This session will include speakers from communities that are working with new Phase 1 and 2 MS4 permits, who will describe what is working/not working in their new permits, and what they need to get the job done. Most of the session will be devoted to an interactive discussion on how to improve state/local coordination on Ms4 permits, and defining key resources needed for permit implementation.

- Erik Michelsen, Administrator, Watershed Protection and Restoration Program, Anne Arundel County Department of Public Works
- Thanh Dang, Transportation & Environmental Planning Manager, Department of Public Works, City of Harrisonburg, VA

Breakout D. Getting Ready for Urban BMP Verification (3:00 to 4:30 PM).

Moderator: Scott Crafton, Louis Berger, Inc.

This session will begin with a review of the Bay-wide BMP verification policy, and an update on how the Bay states are developing their own verification protocols this year. Several speakers will look at the local implications associated with urban BMP verification, and the session will conclude with an interactive discussion of what tools, resources and technology are really needed to make verification happen on the ground.

- Rich Batiuk, U.S. EPA, Chesapeake Bay Program
- Cecilia Lane, Chesapeake Stormwater Network
- Randell Greer, Delaware Department of Natural Resources and Environmental Control
- Dan Frisbee, City of Charlottesville, VA

Evening Activities: Low-key Reception, *Stormies* Award for Best Video

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Day 2 Agenda

Theme: Innovations in Best Practices in the Watershed

Opening Remarks. Increasing Our Urban BMP Literacy (8:30 to 9:00 AM)

- Tom Schueler, Chesapeake Stormwater Network
- Cecilia Lane, Chesapeake Stormwater Network

Breakout F. The DC Stormwater Showcase (9:00 to 10:30 AM)

Moderator: Rebecca Stack, District Department of the Environment

Speakers from DDOE will showcase the recent advances made toward streamlining stormwater issues with the hopes that other localities across the Bay can learn a thing or two that could be applied to their own programs. The discussion will cover DDOE's new online database, new streetscape standards and recent efforts to link stormwater team with sustainability team for better cross department partnerships.

- Matthew Espie, District Department of the Environment
- Steve Saari, District Department of the Environment
- Julienne Bautista, District Department of the Environment
- Meredith Upchurch, District Department of Transportation

Breakout I. Nutrient Discharges from Grey Infrastructure (9:00 to 10:30 AM)

Moderator: Ted Brown, Biohabitats, Inc.

This session will focus on the recently approved expert panel report and how Bay communities can qualify for nutrient reduction credits when they shift to advanced nutrient discovery programs to meet their MS4 permit requirements. The three speakers will highlight effective methods and programs that help to eliminate polluted discharges from our leaky grey infrastructure.

- John Cox, Water Quality Manager, City of Durham, North Carolina, Department of Public Works Stormwater & GIS Services Division
- Bill Stack, Center for Watershed Protection, Inc.
- Cecilia Lane, Chesapeake Stormwater Network

BREAK 10:30 to 10:45

Breakout G. Evaluating Proprietary BMPs (10:45- 12:00)

Moderator: Ginny Snead, Louis Berger, Inc.

It seems that dozens of new and exciting BMPs get invented every year, but the trick is knowing which ones actually work to keep pollutants out of the Bay. This session will explore the feasibility of developing Bay-wide monitoring protocols to rigorously test the sediment and nutrient removal capability of proprietary stormwater practices. After a

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short presentation by the speakers, the audience will be asked to provide their feedback and ideas about the best approach for testing and acceptance.

- Dave Sample, Virginia Tech
- Joe Batiatta, Center for Watershed Protection, Inc.
- Norm Goulet, Northern Virginia Regional Council

Breakout J. Optimizing Street Cleaning in Your Community (10:45 to 12:00) Moderator, Jeremy Hanson, Virginia Tech

This session will describe the key recommendations of the expert panel that recently re-visited the pollutant removal rates associated with a wider range of street sweeping scenarios, including more seasonal ones. Learn how you can optimize your street sweeping program to maximize sediment and nutrient reduction in your community.

- Bill Frost, KCI
- Justin Shafer, City of Norfolk, VA
- Neely Law, Center for Watershed Protection, Inc.

LUNCH 12:00 to 1:00

Breakout H. Industrial BMPs and Permits. (1:00-2:30) Moderator, Cecilia Lane, Chesapeake Stormwater Network

Several Bay states have included greater treatment requirements in their new industrial NPDES stormwater permits. This session will explore the implications of these new permit requirements, starting with their rollout in Maryland this year. A recurring concern is that on-site compliance may not always be possible at the most intensely developed sites. While offsets are allowed, no one is sure who would administer them or how they would work. This session will explore these key issues, and see how they are being handled in other Bay states.

- Ted Scott, Stormwater Maintenance & Consulting
- Paul Hlavinka, Maryland Department of the Environment

Breakout K. Enhanced Bioretention. (1:00 to 2:30 PM) Moderator: Emma Giese, Chesapeake Research Consortium

This session will present a research synthesis on methods to enhance the performance of bioretention and other LID practices through improved media recipes. The speakers will review how much additional nutrient removal is possible through these approaches, and recommend an interim removal rate for practices that utilize these new removal mechanisms.

- Tom Schueler, Chesapeake Stormwater Network
- Bryan Seipp, Center for Watershed Protection, Inc.

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OPEN 2:30 to 5:00

EVENING SOCIAL AND AWARDS PROGRAM

- *Stonerollers* (lifetime stormwater contributions)
- *BUBBAs* (people's choice award)

Day 3 Agenda

Theme: Expanding Our Stormwater Network

Welcome and Remarks (8:30 to 8:45 AM)

- Jennifer Zielinski, Biohabitats, President CSN Board

L. Reality Check: What Our Inspectors are Really Seeing on the Ground
(8:45 to 10:15 AM) Moderator: Tom Schueler, Chesapeake Stormwater Network

Many of us do most of our stormwater in offices, and rarely get out into the field to see the actual state of play when it comes to urban BMPs. In this session, we will hear from the inspectors about the good, bad and the ugly when it comes to stormwater, and their ideas on how it could be improved.

- Dave Hirschman, Center for Watershed Protection, Inc.
- Amanda Winks, Virginia Department of Environmental Quality
- Walter Caldwell, District Department of the Environment

M. Annual State and Federal Regulatory Outlook (10:45 to 12:00)
Moderator: Norm Goulet, Northern Virginia Regional Council

Six minute updates from EPA CBP, EPA Region 3, CSN and the seven Bay jurisdictions on what to expect in the next year in terms of stormwater regulations, permits, permit support and technical assistance, followed by 30 minutes of Q&A.

- Liz Ottinger, U.S. EPA, Region 3
- Katherine Antos, U.S. EPA, Chesapeake Bay Program
- Jeff Seltzer, District Department of the Environment
- Randy Greer, Delaware Department of Natural Resources and Environmental Control
- Ray Bahr, Maryland Department of the Environment
- Carol Lamb-Lafay, New York State Department of Environmental Conservation
- Mike Hickman, Pennsylvania Department of Environmental Protection
- Kelsey Brooks, Virginia Department of Environmental Quality
- Sebastian Donner, West Virginia Department of Environmental Protection

LUNCH 12:00 to 1:00

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N. Panel: Stormwater and the Elected Official (1:00 to 2:30 PM)

Moderator: Mary Gattis, Alliance for the Chesapeake Bay and the Local Government Advisory Committee.

Stormwater is just one of many issues elected officials must address, and it's generally not a top priority. In this session, local elected officials who have made stormwater a priority will share their stories about how they came to recognize the importance of addressing stormwater, what they found most helpful when making tough decisions about allocating resources, adopting regulations, and communicating with constituents, and why they believe there's hope for the rest of us!

- The Honorable Erik D. Curren, City Councilman, Staunton, Virginia
- The Honorable Tom Warman, Commissioner, Ward 3, Spring Garden Township, Pennsylvania
- The Honorable Jacob R. Day, President, City Council, Salisbury, Maryland

BREAK (2:30 to 2:45 PM)

O. Maximizing Ms4 Public Outreach Efforts (2:45 to 4:00 PM)

Moderator, Lou Etgen, Alliance for the Chesapeake Bay

This session will explore recent research and case studies that demonstrate the behavior change that can be expected when local governments target their MS4 outreach efforts on specific behavior that can cause stormwater pollution. The session will also include an update on several Chesapeake Bay initiatives to promote greater stewardship and community engagement. The session will conclude with a facilitated session on how to improve local MS4 outreach efforts and discuss the prospects for crediting them.

- Ana Arriaza, Department of Environmental Protection, Montgomery County, MD
- Cecilia Lane, Chesapeake Stormwater Network

Wrap-up and Evaluation (4:00-4:15 PM)

- Lou Etgen, Alliance for the Chesapeake Bay

2015 Bay-wide Partner's Stormwater Retreat *Presenter Bios*

Katherine Antos is the Implementation and Evaluation Team Leader at the Chesapeake Bay Program Office and serves as Environmental Protection Agency's (EPA) stormwater liaison for the Office. She oversees federal, state and local progress implementing water quality milestones and states' Watershed Implementation Plans to meet the Chesapeake Bay TMDL pollution diet. Katherine enjoys walking, running, biking and rowing along the Anacostia River near her home in Washington, D.C.

Ana Arriaza has worked for the Montgomery County, Department of Environmental Protection (DEP) for eight years. For the last three years, Ana has worked in DEP's Watershed Management Division as a Watershed Outreach Planner. Ana has a BS in Biological Resources Engineering from the University of Maryland at College Park and has been a resident of Montgomery County, MD most of her life.

Raymond P. Bahr has worked for Maryland Department of the Environment for the last 23 years and is currently a Division Chief in the Sediment, Stormwater, and Dam Safety Program. Ray has degrees in Political Science and Environmental Science from Gettysburg College and Johns Hopkins University and has worked for numerous non-profits including the Rails-to-Trails Conservancy and the Chesapeake Bay Foundation.

Rich Batiuk is the Associate Director for Science, Analysis, and Implementation at the United States Environmental Protection Agency's Chesapeake Bay Program Office located in Annapolis, Maryland. In his now 30 years with EPA and the Chesapeake Bay Program partnership, he has led the integration of science into multi-partner policy-making and collaborative decision-making. Rich is now focused on directing the partnership resources towards helping local partners understand their part in the Bay and watershed restoration efforts so he can fish, kayak, and hike in and around clean water.

Joe Battista, P.E. is a Water Resources Engineer at the Center for Watershed Protection, Inc., and has been in the (so called) stormwater business for many years, serving as a private consultant, state regulator, and a humble non-profit grunt. Some of that time was also in the manufactured treatment device industry, so Joe has both an inside and outside perspective (which explains the near constant aimless circles in which he now moves).

Julienne Bautista is an Environmental Engineer for the Watershed Protection Division of the District of Columbia Department of the Environment (DDOE). At DDOE, she is a team member of the permit review staff where she is responsible for reviewing erosion and sediment control plans (SEC) and stormwater management plans (SWMP) including detailed engineering standards and specifications, submitted for development of property within the District of Columbia. In her spare time, she chases waves up and down the Atlantic Coast, and will surf in any weather condition. She has shaped her own surfboard and plans to continue shaping her own watercraft.

Karl Berger is a principal environmental planner at the Metropolitan Washington Council of Governments, working on water quality modeling and monitoring issues, stormwater

regulations, and technical issues. He serves as the co-chair of the Chesapeake Bay Program's Land Use Workgroup and was chair of its Expert Panel on Urban Nutrient Management.

Kelsey Brooks is an Municipal Separate Storm Sewer System (MS4) Stormwater Specialist at the Virginia Department of Environmental Quality. She has been with the Department since June 2013, and has worked primarily on developing guidance for MS4 permittees to meet their Chesapeake Bay and Local TMDL requirements. Ms. Brooks holds a B.A. in Ecology and Evolutionary Biology from Princeton University and a Masters in City and Regional Planning, with a concentration in Environmental Planning, from Rutgers University.

Ted Brown, P.E., LEED AP has over 20 years of experience in environmental restoration, watershed management and planning and regenerative design services. For the last nine years, Ted has served as a practice leader and water resource engineer at Biohabitats. Current project work includes watershed planning and policy development for Montgomery County, Maryland, and stormwater and ecological master planning efforts for major Universities including: Rutgers University, the University of Virginia, and Rowan University.

Medessa Burian has been a Program Manager at the University of Maryland Environmental Finance Center (EFC) since 2011. She currently manages the EFC's Municipal Online Stormwater Training (MOST) Center, the Clean Diesel Dray Truck Replacement Program, and the Green and Healthy Schools program. She also manages the Center's website and provides support to other programs that focus on public health.

Walter Caldwell is currently the Chief of the Inspection and Enforcement Branch of the Watershed Protection Division within the District Department of the Environment. Walter began his professional career as an environmental health professional with the Anne Arundel County Department of Health, as a Registered Environmental Sanitarian in the Community and part of the Environmental Health and Sanitary Engineering Divisions. He has also worked as a staff member, consultant, and volunteer for Maryland Save Our Streams and the National Audubon Society. Walter began working for the Watershed Protection Division of the District Department of Health in June of 1999. There he was tasked with developing a stormwater management best practices, maintenance inspection, and enforcement program. Since then, he has inspected or assisted with inspection of thousands of Stormwater BMPs in the District of Columbia.

John Cox is Water Quality Manager for the City of Durham's stormwater program. He has a Bachelor's degree in Environmental Science from University of Virginia and a Masters in Civil Engineering from Old Dominion University. He spent the first half of his career working for consulting firms in Virginia, Southern California and North Carolina. John has been with the City of Durham for eighteen years, helping develop and implement the City's stormwater management plan. An avid surfer, John has a personal interest in water quality.

Scott Crafton, a Virginia Tech graduate and registered Landscape Architect in Virginia, is a Stormwater Project Manager with Louis Berger, Inc., an international multi-disciplinary engineering firm. In 2006 Scott retired from a 30-year career in state government, having served as Assistant Director of the Virginia Department of Conservation and Recreation (DCR) for several years and, formerly, as Executive Director of the Virginia Chesapeake Bay Local Assistance Department. He also served for several years as chairman of the EPA Chesapeake Bay Program's Stormwater Work Group and currently serves on the Board of Directors for the Chesapeake Stormwater Network.

The Honorable Erik Curren, Councilman, Staunton, Virginia. Erik Curren was elected to the city council of Staunton, Virginia in 2012. His primary interests include economic development, tourism, arts and culture, and environmental quality. He chairs the Staunton Food Policy Council, established in 2013 at his initiative, and has also been active in the effort to safeguard Staunton's water resources in the face of the proposed Atlantic Coast Pipeline, a natural gas transmission line slated to cross the Shenandoah Valley on its way across Virginia. Erik is CEO of the Curren Media Group, a digital marketing agency that builds websites and provides online marketing to companies in clean energy, information technology and manufacturing as well as non-profit organizations.

Thanh Dang has been with the City of Harrisonburg, VA's Department of Public Works for eight years and is currently the Transportation & Environmental Planning Manager. She works to improve transportation options with new sidewalks, bike lanes, and trails, and also works to improve water quality. With assistance from the Stormwater Program Coordinator, Thanh oversees the city's MS4 permit program, green infrastructure projects, and Harrisonburg's newly established stormwater utility program.

The Honorable Jacob S. Day, President, Salisbury City Council, Maryland. Jake Day is President of the Salisbury (MD) City Council. He is a Cavalry Officer in the US Army National Guard and is a member of the Next American Vanguard, Leadership Maryland, and the Smart Growth America Local Leaders Council. He served as Founding Director of the Center for Towns and President of the American Institute of Architecture Students. He earned a bachelor's degree in Architecture from the University of Maryland and masters' degrees in Urban Design and Environmental Policy from Carnegie Mellon University and Oxford University.

Nick DiPasquale is the Director of the U.S. EPA's Chesapeake Bay Program Office (CBPO) which coordinates the overall Bay watershed restoration effort. Nick has nearly 30 years of public policy and environmental management experience in both the public and private sectors. He previously served as Deputy Secretary in the Pennsylvania Department of Environmental Protection; Director of the Environmental Management Center for the Brandywine Conservancy in Chadds Ford, Pennsylvania; and as Secretary of the Delaware Department of Natural Resources and Environmental Control.

Sebastian Donner is a Stormwater Specialist within the West Virginia Department of Environmental Protection (WVDEP) nonpoint source program. He provides technical and compliance assistance to MS4s and communities interested in implementing Low Impact Development and Stormwater Control Measures.

Matthew Espie is an Environmental Protection Specialist at the District Department of the Environment (DDOE) in Washington, DC. Matthew's work focuses on financial incentive programs for BMPs and on DDOE's Stormwater Database, which tracks BMP installation and maintenance and streamlines programs that use BMP data.

Lou Etgen, MD/DC State Director is a lifelong resident of the Chesapeake Bay watershed. Lou received his environmental education degree from Towson University and has worked in various environmental non-profits for over 25 years, including 14 with the Alliance for the Chesapeake Bay. He currently resides in Arnold, MD with his wife Cindy and border collie/lab mix, Rocky.

Dan Frisbee is a Water Resources Specialist for the City of Charlottesville, Virginia, where he has worked in the City's Environmental Sustainability Division for over 11 years. He coordinates the City's stormwater management program, most notably their Phase II MS4 Permit, and participates in stormwater retrofitting, urban stream restoration, local waterway and Chesapeake Bay TMDL related efforts, riparian stream buffer and urban forest management, and urban watershed planning. In his free time, he enjoys spending quality time with his wife and two sons, mountain biking, hiking, playing golf, and partaking of good food and good drink with good friends.

Bill Frost is a Senior Associate with KCI Technologies Inc.'s Water Resources Practice, with over 25 years of experience in watershed planning and National Pollutant Discharge Elimination System (NPDES) MS4 permitting in both the public and private sectors. His work has focused on watershed restoration and more recently, TMDLs; in particular, approaches to modeling pollutant load reductions to demonstrate compliance. He is a licensed engineer, with M.S. degrees in Civil Engineering from the University of Maryland and in Urban Planning from Johns Hopkins University. His B.S. was earned at Harvey Mudd College.

Mary Gattis is Director of Local Government Programs at the Alliance for the Chesapeake Bay. Her primary role is staff to the Chesapeake Bay Program's Local Government Advisory Committee (LGAC). A certified planner, Mary is a member of the Chesapeake Stormwater Network Board of Directors and Pennsylvania's Chesapeake Bay Management Team.

Emma Giese is a Chesapeake Research Consortium staffer at the Chesapeake Bay Program for the Urban Stormwater, Agriculture, and Land Use Workgroups, as well as several BMP Expert Panels. Previously she was an AmeriCorps volunteer who spent her time improving trails and nature centers in the Maryland State Parks. Now in her third and final year as a CRC Staffer, Emma is looking for new opportunities in the stormwater field once her time with the Bay Program ends next year. In her free time Emma enjoys raising a small crop of container vegetables on her balcony.

Norm Goulet is a Senior Environmental Planner with the Northern Virginia Regional Commission. He joined the Commission in 1991 with a focus on water resources management. He is responsible for overseeing the northern Virginia Regional MS4 and stormwater programs as well as advancing the regions technical, policy, and regulatory perspective to the Commonwealth through its various regulatory and technical advisory groups. In addition to those efforts he is also a member of Virginia BMP Clearinghouse and is the Chairman for EPA's Chesapeake Bay Urban Stormwater Workgroup.

Randy Greer is an Engineer VI with the Sediment & Stormwater Program within the Delaware Department of Natural Resources and Environmental Control. Randy's educational background consists of a BS in Agriculture and an MS in Resource Economics from the University of Delaware. He is also a registered Professional Engineer in the State of Maryland. His career includes over 30 years of experience addressing non-point source pollution problems in both the agricultural and urban environments.

Jeremy Hanson is Virginia Tech's Project Coordinator for Expert Panel BMP Assessment at the Chesapeake Bay Program. He's been with the Bay Program since 2012, serving as staff for the Water Quality Goal Team until he transitioned to his current position in 2014. He loves craft beer, bourbon, and Husker football.

Mike Hickman is a Water Program Specialist for the Pennsylvania Department of Environmental Protection's (DEP) Central Office. He received his B.S. in Environmental Engineering from Penn State University and a M.S. in Water Resources and Environmental Engineering from Villanova University. At the PA DEP he is currently focusing on assisting in drafting MS4 permits, guidance materials, technical assistance, and performing inspections of MS4 permittees.

David Hirschman has over 30 years of experience with stormwater and water resources management. His career spans the public, private, academic, and non-profit sectors. He managed the stormwater program for a local government in Virginia, taught water resources courses at Virginia Tech and the University of Virginia, and has led numerous trainings and workshops across the country and in the Pacific. David serves as a Program Director and Virginia office director for the Center for Watershed Protection, coordinating local government, state, and territorial programs. He has a B.A. in Biology from Duke University and a Master of Urban & Regional Planning from Virginia Tech.

Paul Hlavinka has an engineering and project management background. He received his B.S. degree from North Dakota State University, an MBA from St. Thomas University in Minnesota, and an M.E. degree from the University of Maryland-College Park. He works at Maryland Department of the Environment (MDE) in the Water Management Administration in the Industrial and General Permits Division as the technical lead, and works primarily with individual permits and Industrial Stormwater permitting.

Carol Lamb LaFay, P.E. graduated with a Bachelor of Science in Chemical Engineering from Cornell University in 1986. Carol has been employed with New York State Department of Environmental Conservation (NYSDEC) since 1987, in Region IV since 1990. She was responsible for the implementation and enforcement of the Phase II Stormwater Regulations for Multi-Sector General Permits, MS4s, and Construction Projects disturbing >1 acre for all nine counties in Region IV from 2003 - 2010. Carol is currently the Section Chief for the Stormwater Permits Section in the Bureau of Water Permits and is responsible for the development and implementation of the statewide stormwater program.

Cecilia Lane is the Stormwater Coordinator for the Chesapeake Stormwater Network (CSN) where she is responsible for administering the Chesapeake Bay Stormwater Training Partnership, a National Fish and Wildlife Foundation funded initiative to provide free training to stormwater professionals across the Bay watershed. Additionally, she manages and communicates with CSN's network of over 7,500 individuals. In her spare time she enjoys hiking with her family and drinking porters (a style of beer).

Neely Law works at the Center for Watershed Protection (CWP) with a focus on applied stormwater and watershed research. For the past 3 years she has worked at the Chesapeake Bay Program as one of the Sediment and Stream Coordinators to support BMP expert panels, along with topics related to stream restoration and health.

Erik Michelsen is currently the Administrator of Anne Arundel County's Watershed Protection and Restoration Program and is charged with managing a billion dollar restoration program to clean up the County's waterways and satisfy its Municipal Separate Storm Sewer System (MS4) and Chesapeake Bay TMDL requirements.

Elizabeth Nellums has worked for the National Fish and Wildlife Foundation's (NFWF) Chesapeake Bay Stewardship Fund since 2012, first as Coordinator and now as Manager. Prior to joining NFWF, Elizabeth worked at the Maryland Chapter of The Nature Conservancy and at a local land trust in Michigan, where she was born and raised. She earned a master's degree at the University of Michigan and a bachelor's degree in Botany from Miami of Ohio.

Elizabeth Ottinger has been at EPA since 2007 as a member of the NPDES Permits Branch. Liz's primary focus is stormwater permitting in the municipal, industrial, and construction arenas. She is a member of the EPA pretreatment team, has contributed to TMDL development and implementation (including serving on the urban sector team in oversight of the implementation of the Chesapeake Bay TMDL), and assists in stormwater inspections as well as the development of NPDES enforcement cases. Prior to coming to EPA, Liz worked for Hanover Engineering Associates, a private consulting engineering firm and the Naval Facilities Engineering Command as a civilian employee.

Jake Reilly is the Director of Chesapeake Bay Programs for the National Fish and Wildlife Foundation (NFWF) where he directs all aspects of the Chesapeake Bay Stewardship Fund, including design, implementation, and management of \$12-14 million in annual competitive grants programming. Prior to joining NFWF, Jake managed budget, policy, and programming for Federal agricultural conservation and forestry programs at the White House Office of Management and Budget and served as an environmental management fellow with the Chesapeake Bay Program in Annapolis, MD. He has earned degrees in Environmental Science and Natural Resources Economics from the University of Maryland and Johns Hopkins University.

Steve Saari, is a watershed protection specialist with the District of Columbia Department of the Environment (DDOE) where he has worked for the past seven years. Steve has been in the watershed restoration field for thirteen years and has been working in the environmental field for the past 21 years. He started his watershed career at the EPA Chesapeake Bay Program and then moved on to the Interstate Commission on the Potomac River Basin where he worked as a watershed manager. Steve is currently building a wooden sea kayak so he can spend more time enjoying the beauty of the Chesapeake Bay.

David Sample is a faculty member of Biological Systems Engineering at Virginia Tech, based in Virginia Beach. David's research focuses upon improving the management of urban stormwater by improving design of best management practices (BMPs) using monitoring and modeling. He hopes better designed, more predictable BMPs will result in improved surface water quality.

Bryan Seipp has been with the Center for Watershed Protection since 2009. His responsibilities include watershed planning, project implementation, field assessments, and conducting training workshops. He manages a variety of projects including the Performance Enhancing Designs for BMPs Project. In his free time Bryan enjoys mountain biking, fishing, and SCUBA diving, and he is really looking forward the New Orleans Jazz and Heritage Festival at the end of the month.

Jeff Seltzer is a Professional Civil Engineer with over 20 years of experience and serves as the Associate Director for the Stormwater Management Division at the District Department of Environment (DDOE). In this role, he is responsible for DDOE's stormwater management

initiatives that improve the quality of the District's tributaries and rivers, and ensure compliance with federal stormwater requirements.

Tom Schueler is the Executive Director of the Chesapeake Stormwater Network, a non-profit organization devoted to implementation of more sustainable stormwater practices across the Chesapeake Bay watershed. Tom also serves as the stormwater technical coordinator for the EPA Chesapeake Bay Program. Tom has more than 30 years of experience in practical aspects of stormwater practices to protect and restore urban watersheds and is active in promoting better stormwater regulations and permits in communities across the Bay. Tom founded the Center for Watershed Protection in 1992, and loves stream-walks, good scotch, and bad dogs.

Ted Scott is a practicing Professional Engineer with 30 years (egad, he is getting old!) of stormwater-related experience and is the Founder and Front Man of Stormwater Maintenance & Consulting (SMC). With a focus on existing infrastructure, Ted and SMC are deeply involved with all aspects of stormwater management including design, construction, and operations & maintenance. Also serving as Board Chair for Blue Water Baltimore, Ted has a unique understanding of facilitating improved water quality in both the non-profit and business communities.

Justin Shafer works as an Environmental Engineer with the City of Norfolk, where he coordinates TMDL compliance and other water quality programs. He has a Masters in Biology from Old Dominion University, with a background in coastal ecology and restoration. The City of Norfolk has the most comprehensive street sweeping program in southeastern Virginia and Justin regularly works with Operations staff to improve this program and monitor results.

Ginny Snead is with Louis Berger, Inc.

Bill Stack is the Deputy Director of Programs at the Center for Watershed Protection and has served in this capacity for the past five years. Prior to coming to work for the Center, Bill spent 30 years working for Baltimore City Department of Public Works where he was responsible for the City's Source Water Protection and MS4 Permit Programs. Bill is an engineer and biologist and is interested in bridging the gap between the two disciplines to find unique solutions to restoring our watersheds.

Rebecca Stack works for the District Department of the Environment.

Joanne Throwe is the Director for the Environmental Finance Center (EFC) located at the University of Maryland and has been with the EFC since 2005. Her work focuses on providing technical assistance on financing issues related to environmental protection activities which help communities better manage their limited resources. Ms. Throwe's particular areas of expertise are related to sustainable water infrastructure, agriculture, and transportation issues.

Al Todd is the Executive Director of the Alliance for the Chesapeake Bay. Founded in 1971, the Alliance is one of the oldest and most experienced organizations and builds partnerships and inspires local action to protect and restore the Bay and its watershed. Prior to taking over the reins of the Alliance in 2011, Al spent nearly 34 years as a hydrologist and watershed leader with the US Forest Service working on issues from the local to the national level.

Meredith Upchurch works for the District Department of Transportation.

The Honorable Tom Warman, Commissioner, Ward 3, Spring Garden Township, PA. Tom Warman is second-term Commissioner in Spring Garden Township, a township of

12,000 residents bordering the City of York, county seat of York County, PA. He recently was named Chair of the Management Committee of the newly-formed York County Stormwater Consortium, and serves on the board of the York City Sewer Authority. Tom is an independent environmental consultant who performs due diligence investigations and wetland delineations in southcentral Pennsylvania.

Neil Weinstein, P.E., ASLA, AICP, ENV PV is the Executive Director and one of the founders of the Low Impact Development (LID) Center. Neil is a registered engineer and landscape architect and is a member of the American Institute of Certified Planners and the American Society of Civil Engineers' Urban Water Resources Research Council. For the last 10 years Neil has primarily been focused on the planning, research, and design of innovative stormwater management practices, including LID.

Amanda Winks started with the City of Lynchburg as an assistant chemist at the wastewater treatment plant. Using her water quality testing background, she moved over to the City's stormwater program as the Stormwater Compliance Inspector, primarily responsible for maintenance agreements concerning privately owned BMPs and the illicit discharge program. She currently works for the Virginia Department of Environmental Quality as a Stormwater Compliance Specialist working closely with the Stormwater Construction General Permit and MS4 programs.

Jennifer Zielinski, Senior Water Resources Engineer with Biohabitats, has over 17 years of experience in water resources analysis, policy development, planning and design. Before joining Biohabitats, Jennifer was program director at the Center for Watershed Protection. Jennifer has worked with communities throughout the country on projects focusing on watershed planning, green infrastructure, and stormwater control measures and retrofits. Jennifer has been involved in the development of many local and state stormwater manuals as well as national guidance for U.S. EPA to support the NPDES MS4 stormwater program. In addition Jennifer serves as the President of the Board for the Chesapeake Stormwater Network.