17th Annual Conference November 3 & 4, 2021
SPEAKER BIOS

Day 1 Track 1	
Session	Speaker(s)
Introduction to Risk Rating 2.0	**Richard J. Sobota, CPCU - FEMA** Richard J. Sobota is a Senior Insurance Specialist and Regional CRS Coordinator for DHS/FEMA Region III in Philadelphia, PA.
Elevation Certificate FAQ: Risk Rating 2.0 & More	**Del Schwalls PE, CFM – Schwalls Consulting** Del Schwalls is President of Schwalls Consulting, the Immediate Past Chair of the Florida Floodplain Managers Association, and Region 4 Director of ASFPM. He has more than 20 years of experience in floodplain management, hydrologic and hydraulic analyses, and water resources engineering. He specializes in working with communities to achieve their floodplain management goals, including refining their Community Rating System program, floodplain ordinances, and overall regulatory framework. He conducts trainings across the country on accurately completing FEMA Elevation Certificates (ECs) and addressing EC deficiencies. Mr. Schwalls has extensive experience with the FEMA Hazard Mitigation Assistance (HMA) grant programs, and serves as a subject matter expert (SME) in HMA grants and FEMA benefit cost analysis for states and communities. He has developed floodplain modeling and mapping across the nation, and specializes in conducting independent QA/QC of FEMA Flood Risk projects. He has repaired numerous LOMAs and LOMRs across the Southeast US, and began his career in Washington, D.C. reviewing LOMRs and FISs for FEMA. He is currently the Hydrology/Hydraulics SME to the Florida Commission on Hurricane Loss Projection Methodology. Mr. Schwalls holds a BS in environmental engineering from Mercer University, is a registered PE in FL, AL, GA, and SC, and earned his CFM in 2003.
MDE Stormwater Program	**Jennifer Smith, P.E.- Maryland Dept of the Environment** Jennifer Smith is the Program Manager of the Maryland Department of the Environment's Stormwater, Dam Safety and Flood Management Program. Ms. Smith directs the Program's implementation of Maryland's laws and regulations for erosion and sediment control, stormwater management, and dam safety, the issuance of

	Phase I and Phase II Municipal NPDES permits and Maryland's FEMA floodplain mapping and community assistance responsibilities. Ms. Smith is a Maryland registered professional engineer with 33 years of experience working with stormwater management and sediment and erosion control programs in Maryland. She has worked for the state of Maryland for 8 years and for many Maryland jurisdictions both as an employee and as a private consultant. Ms. Smith is a graduate of Virginia Tech with B.S and M.S degrees in Engineering.
Identifying relationships between urban greenness, hydrologic changes, and green stormwater infrastructure across the United States	**Gary Conley - 2NDNATURE Software** Gary is Chief Scientist at 2NDNATURE Software, bringing 15 years of experience in both public and private sectors working to understand water quality problems and identify practical solutions. With expertise in hydrology, pollution dynamics, numeric modeling, and applied math, his work focuses on identifying water quality impacts and understanding patterns of change to improve environmental decision making. At 2NDNATURE Software, his team develops the basis for turning data into actionable knowledge via web-based geospatial tools. He leads scientific development of the 2NDNATURE platform, a first-of-its-kind modeling and progress tracking system now used by 56 cities across the US in 13 different states. He has also developed Integrated Regional Watershed Management Plans, Stormwater Management Plans, Climate Change Adaptation Plans, Reasonable Assurance Analysis modeling studies, and provides ongoing technical support for NPDES MS4 permit compliance for communities throughout the US.
Today's Climate Resilient Stormwater Management Infrastructure Turns to the Cloud	**Robert G. Bathurst, MS, PE, D.WRE - Century Engineering, Inc.** Mr. Bathurst is a Principal at Century Engineering in Hunt Valley, MD. Bob graduated from Drexel University with a BS degree in Civil Engineering and MS degree in Industrial Administration from Carnegie Mellon University. He has advanced education in civil engineering with specialization in water resources and has testified as an expert witness in matters regarding stormwater management throughout the course of his 30-year career. Bob holds D.WRE Board Certification from the American Academy of Water Resources Engineers (the highest level of advanced post-license certification offered in the water resources engineering profession for professional engineers) and holds Professional Engineer licenses in Maryland, Pennsylvania, DC & West

	Virginia. Bob has served as a consultant to the Maryland Department of the Environment - Water & Science Administration since 2002 and City of Baltimore - Office of Plans Review and Inspections since 2004.
Day 1 Track 2	
Designing Passive Floodproofing Solutions Using Floodproof Windows and Wall Systems	**Kurt Luecke, CFM - Floodproofing.com** Over 30 years experienced in national channel and direct sales management. Product expertise in Wet and Dry Flood proofing solutions, NDT using XRF, OES and LIBS Spectrometers, renewable energy / photovoltaic, structured wiring, consumer electronics, security, telecommunications, VOIP, satellite TV and diamonds.
Dry Flood Proofing – Flood Loading Analysis for Mitigation Solutions	**Michael MacGowan, CFM - ILC Dover** Mr. MacGowan is a design engineer for the Infrastructure Protection and Flood Mitigation business at ILC Dover with extensive experience in designing solutions for dry flood proofing for many types of clients and situations. He graduated from East Carolina University with a Bachelors in Mechanical Engineering and currently is a certified flood plain manager.
Mapping Floodplains Using HEC RAS 2D	**Katie Scott, PE - Coastal Resources, Inc.** Katie Scott, PE, works for Coastal Resources, Inc (CRI), a dynamic environmental consulting firm in Annapolis Maryland. Coastal is a small, woman-owned certified MBE/DBE with some of the most experienced environmental professionals in the area. About 30 people work at CRI in two teams: Natural Resources Team with environmental scientists who inventory wetlands, forests, and wildlife; and the Water Resources Team with engineers, environmental scientists, and a landscape architect who design stream restoration, wetland creation, and stormwater best management practices. Katie is the senior professional engineer on staff with an expertise in hydrologic and hydraulic modelling. For the past 6 years, Katie has provided the support needed to ensure that the designs proposed will remain stable during storm events. Katie has worked for other consulting firms and USDA NRCS in the past. In her spare time Katie volunteers with the Anne Arundel County Master Watershed Stewards.
Can HEC-RAS Be a 'One Stop Shop'?	**Vahid Zahraeifard – Atkins North America Inc.** Vahid Zahraeifard is a water resources engineer with about 10 years of combined experience (academic and industry) in the field of water resource. He has been with Atkins since 2017 during which he has been involved in FEMA studies in different regions across the county. Vahid has PhD, MSc, and Bsc degrees all in Civil

	Engineering. He is a CFM and PE. **Valdete Celaj – Atkins North America Inc.** Valdete Celaj is a Water Resources Engineer with 24+years of experience. 21+ of those years are dedicated to Floodplain Mapping Management throughout the country. She has worked for ATKINS for 5 years and PBS&J for 2.5 years. She holds a MSc and BSc degree in Civil Engineering.
My Property is just Inside the SFHA – Does Cross Section Spacing Make a Difference?	**Paramjit Chibber, PE, CFM - ATKINS North America Inc** Paramjit Chibber has more than fifteen year experience in civil engineering working as an Engineer with Atkins. In his role as an engineer with Atkins, he has performed and reviewed H&H studies. LOMRs, CNMS validations, terrain, survey and floodplain mapping tasks as it pertains FEMA's National Flood Insurance Program.
Day 2 Track 1	
GISHydroWEB: A GIS-based online hydrologic modeling tool for Maryland	**Javier Mardones - Michael Baker International** Javier's background currently lies in hydroinformatics, GIS applications, hydrologic and hydraulic (H&H) modeling, and fluid mechanics. After graduating as a Civil Engineer from the Pontificia Universidad Católica de Chile with an Associate Degree in Hydraulic Engineering, he spent two years working for Arcadis (Chile) providing technical support for large-scale projects such as hydroelectric and irrigation dams, mine tailings transportation systems, mudflow mitigation measures, among others. While pursuing a M.Sc. in Civil Engineering at University of Maryland, College Park., Javier was the lead programming developer for Maryland GIS-Based Hydrologic Modeling tool "GISHydro", along with actively participating with the Maryland Hydrology Panel. Since then, Javier has been working for Michael Baker International for more than 2 years, involved in several water resources projects such as storm drain system analysis, hydrologic programming, and floodplain modeling.
Flood Forecast Alerting based on NOAA's National Water Model	**Jennifer McGee, PE, CFM, GISP – Wood PLC** Ms. McGee is a Water Resources Engineer with Wood. She has a background in FEMA's NFIP program and Public Assistance program for disaster recovery. Her overall focus is on developing data science applications for engineering projects. She is also the Digital Skills Lead for the Wood Consulting business focusing on training for the Microsoft Office 365 platform.

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	Thomas Williams, PE – Wood PLC Mr. Williams is Water Resources Engineer and Software Engineer with Wood, leading the Water Technology practice. On the water side he has a background in hydrology, hydraulics, GIS, and water resources planning; on the software side he builds web applications and develops specialized tools for Wood's water resources engineers and GIS analysts.
Guidance to Enhance Climate Resilience of Tidal and Near-Tidal Waterway Crossings	**Christopher Overcash, PE, BCEE, ENV SP, LEED AP – EA Engineering, Science, and Technology, Inc.,** PBC Mr. Overcash is the Deputy Director of Coastal Resilience and a Senior Engineer with EA Engineering, Science and Technology, Inc. PBC in Hunt Valley, Maryland. He is a licensed professional engineer in 10 states, a Board Certified Environmental Engineer, and is also credentialed by the Institute for Sustainable Infrastructure and the U.S. Green Building Council. He holds a Masters of Environmental Engineering from John Hopkins University where he is also an adjunct professor and program manager. **Nicole Wildart, CFM** Ms. Wildart is a Scientist and Certified Floodplain Manager with EA Engineering, Science and Technology, Inc., PBC in Hunt Valley, Maryland. She is a member of the Association of State Floodplain Management Social Justice Task Force and Maryland Water Monitoring Council Stream Restoration Subcommittee. Ms. Wildart has over 10 years of experience in climate change adaptation and resiliency and waterway and floodplain studies and holds a Masters of Environmental Science and Policy from Johns Hopkins University.
Building A Community-Oriented Decision Support for Compound Flood Events	**David Alexander, PhD - Science & Technology Directorate, Department of Homeland Security** DAVID ALEXANDER is the Senior Science Advisor for Resilience at the Department of Homeland Security, Science and Engineering Directorate. He has served as Senior Science advisor since 2019 and has worked for the Department of Homeland Security since 2007. David earned his PhD from George Mason University with a focus in Earth Sciences and Geospatial Information. **Claire Jeuken - Deltares USA**

	Dr Claire Jeuken is a marine system consultant with a background in coastal and estuarine morphology and physical processes. She specializes in the integration and application of physical, ecological and engineering knowledge for multi-disciplinary projects focusing on sustainable marine infrastructure development and coastal adaptation to mitigate flood risks.
Local Climate Vulnerability Assessment Informs Future Investment and Educates the Community	**Jeremy Scharfenberg - Columbia Association** Mr. Scharfenberg has 18 years of experience involving institutional sustainability, energy management/efficiency, greenhouse gas (GHG) emission inventory and mitigation, climate change adaptation, life-cycle analysis (LCA), and water resource management. He is currently serving as the Energy Manager for the Columbia Association where he is responsible for implementing energy and sustainability projects for the community of Columbia, Maryland; this responsibility includes overseeing the sustainable operations of more than 50 buildings and designing and implementation of comprehensive energy and sustainability initiatives. **Necolle Maccherone, CFM - Michael Baker International** Necolle supports national, state and local projects that deal with flood risk reduction, hazard mitigation and climate change. Her efforts with FEMA's community engagement and risk communication contract builds local awareness and creates tools for communities to analyze and assess their risk. Necolle has helped Maryland jurisdictions become more resilient from flooding through her work updating local hazard mitigation plans, supporting the Maryland Flood Awareness Month social media campaign, and as Chair of the Maryland Association of Floodplain and Stormwater Managers. She has contributed locally to create partnerships with like-missioned organizations such as the Maryland Resiliency Partnership, Howard County Watershed Improvement Network, Long Reach Watershed Committee, and the City of Annapolis Weather It Together Team. She is a Certified Floodplain Manager, a professional certification through the ASFPM.
Day 2 Track 2	
Cloudburst Analysis Tools and Methods	**Zachary H. Ranstead, P.E., LEED-AP, CFM - T&M Associates** Mr. Ranstead is a Project Manager with 23 years of experience in Civil Engineering. His work involves the design and management of residential, commercial, industrial, and institutional projects with an emphasis on stormwater, flood study, erosion control and BMP designs. His experience includes permitting work for PADEP,

	County Conservation Districts, FEMA and PennDOT on projects throughout Pennsylvania and New Jersey. Mr. Ranstead is also an advisor for a private client involved with nationwide real estate investments. Mr. Ranstead was selected as Deputy Task Order Manager for FEMA Region III RTO FY21. Mr. Ranstead developed new PADEP-approved stormwater volume management credits achieved through the design of baseflow replication facilities for sites with infiltration limitations. These methodologies were vetted with the Stormwater Technical Workgroup, a consortium working with PADEP to revise the Stormwater BMP Manual. PADEP favorably considered his work as Standard Guidance.
Relative Sea level rise at tide gauge Sewells Point, Virginia	**Yi Liu, P.G. - Morgan State University** Dr. Yi Liu is Assistant Professor in Department of Civil Engineering, Morgan State University (MSU). He got his Bachelor in 1985 and Master in 1988 in hydrogeology and geotechnical engineering from China University of Geosciences and Doctorate in civil engineering from MSU in 2006. His research interest includes land subsidence and sea level rise. He worked on geotechnical engineering, hydrogeology and land subsidence in Shanghai, China from 1988 to 2002 and agricultural hydrology in the U.S. Southwest from 2007 to 2014. He is a registered Professional Geoscientist in Texas Board of Professional Scientists. His relative sea level rise research is supported by two current NSF projects "Identification of absolute sea level rise and land subsidence from long-term tide gauge records along coasts of the Gulf of Mexico and the Chesapeake Bay" and "Identification of urban flood impacts caused by land subsidence and sea level rise in the Houston-Galveston region."
eLOMA – A Collaborative Tool for Licensed Professionals, Communities, and FEMA	**David Mummert - Michael Baker International** David Mummert has over 19 years of National Flood Insurance Program (NFIP) experience with Michael Baker International in the MT-1 (LOMA) Group. He is a graduate of St. Mary's College of Maryland with a degree in Biology with a specialization in Environmental Science. He is currently the Northwind Resource Consulting (NWRC) eLOMA Coordinator for all 10 FEMA Regions, Technical Manager for the NWRC MT-1 Group, and Subject Matter Expert for LOMA and eLOMA processing through FEMA's Mapping Information Platform (MIP) website.
Cumulative Substantial Improvement Tracking:	**Susanna Pho, CFM – Forerunner** Susanna Pho is a co-founder of Forerunner, a software company working with government agencies to leverage per-property flood risk information to streamline planning, compliance, and outreach. The company

Addressing the Challenge of Day-to-Day Enforcement	has partnered with U.S. communities of all sizes to mobilize data for applications ranging from regulation enforcement to adaptation planning. Susanna is a Certified Floodplain Manager based in California with experience working with local government in research and community development capacities. She holds an M.Des degree in Risk and Resilience from Harvard University and an M.Arch degree from MIT.
Digital Transformation Revolutionizing Stormwater Programs: How to be Ready for Changes Ahead	**Michelle Tanner- 2nd Nature Water** Michelle works at an environmental software company that brings science to decision-makers. She is a product manager responsible for guiding and leading the research, development, and ongoing improvements of new and upcoming software features.