

## **Fall Floodplain Institute**

NORTH CAROLINA ASSOCIATION OF FLOOD PLAIN MANAGERS

## **PROGRAM**

# **18<sup>th</sup> Annual Fall Floodplain Institute** October **11-13**, 2023 Asheville, NC

| Tuesday, Oct   | tober 10  |  |  |  |
|--|---|--|--|--|
| 6:00 PM – 9:00 PM  | 9:00 PM NCAFPM Board Meeting (Dogwood)  |  |  |  |
| Wednesday, October 11  |   |  |  |  |
| 9:00 AM –<br>1:00 PM   | Vendor Exhibit Setup (Mitchell Room)  |  |  |  |
| 12:30 – 1:45 PM  | Registration (Laurel Registration Area)   |  |  |  |
| 1:45 – 3:15 PM   | PLENARY SESSION 1: OPENING (Ballroom – Roan/Pisgah/Pilot) Master of Ceremonies: Laura Arnold, PE, CFM (NCAFPM Vice Chair)   |  |  |  |
| Note: Duration of individual   | Welcome to FFI: Laura Arnold, CFM, PE (NCAFPM Vice Chair) [10]  |  |  |  |
| presentations is in  | Welcome to Asheville: Sandra Kilgore, Vice Mayor of the City of Asheville [10]  |  |  |  |
| brackets [ ].  | ASFPM/CFM/Chapter Update: Bill Tingle, CFM (NCAFPM Executive Director) and Jessica Artz, CFM (ASFPM Chapter Director) [20]  |  |  |  |
|  | Scholarship Program: Laura Arnold, CFM, PE (NCAFPM Vice Chair) [10]   |  |  |  |
|  | Student Chapter: Amit Sachan CFM, PE (AtkinsRéalis) [10]  |  |  |  |
|  | Federal Emergency Management Agency (FEMA) Region IV Update: Valerie Anderson (Invited) [30]  |  |  |  |
| 3:15 – 3:45 PM   | BREAK – Refreshments (Mitchell Room)  |  |  |  |
| 3:45 – 5:15 PM   | PLENARY SESSION 2: STATEWIDE UPDATES (Ballroom – Roan/Pisgah/Pilot) Moderator: Bill Tingle, CFM (NCAFPM Executive Director)   |  |  |  |
| <b>Note:</b> Duration of individual presentations is in brackets []. | North Carolina Office of Recovery and Resiliency (NCORR) Update: Maggie Battaglin, PMP, CFM, Jeffrey G. Royal, PhD, Edgar Gomez, and Holly B. White, AICP, CFM [60]   |  |  |  |
|  | North Carolina Department of Transportation (NCDOT) Resiliency Update: Matt Lauffer, PE, Assistant State Hydraulics Engineer [30]   |  |  |  |
| 5:15 – 5:45 PM   | Registration (Laurel Registration Area)   |  |  |  |
| 5:30 – 7:00 PM   | Exhibitors' Social – Refreshments (Biltmore Foyer, Mitchell Room)   |  |  |  |
| 7:00 – 11:45 PM  | Downtown Shuttle Provided by Young Transportation bus leaves from Crowne Plaza Main Entrance to Asheville South Slope then to Pack Square then back to Crown Plaza. Shuttle runs a continous loop until 11:45. RIDERS MUST HAVE THEIR FFI NAME TAG VISABLE TO BOARD THE BUS |  |  |  |
| 9:00 – 11:00 PM  | Hospitality Suite Open (Room 220 Thomas Wolfe Suite)  |  |  |  |

| Thursday, October 12  |   |  |  |  |  |  |
|---|---|--|--|--|--|--|
| 7:00 – 10:30 AM   | Registration (Laurel Registration Area)   |  |  |  |  |  |
| 7:00 – 8:30 AM  | Morning Meet and Greet - (Mitchell Room)  |  |  |  |  |  |
| 8:30 – 10:00 AM   | PLENARY SESSION 3: STATEWIDE UPDATES (Ballroom – Roan/Pisgah/Pilot)<br>Moderator: Amit Sachan, PE, CFM (AtkinsRéalis)   |  |  |  |  |  |
| Note: Duration of individual  | North Carolina Emergency Management (NCEM) Update: Steven Jackson, Deputy Mitigation Section Chief (NCEM) [45]  |  |  |  |  |  |
| presentations is in brackets [].  | North Carolina Department of Environmental Quality (NCDEQ) Resiliency Blueprint Update: Marc Recktenwald [45]   |  |  |  |  |  |
| 10:00 – 10:30 AM  | BREAK – Refreshments (Mitchell Room)  |  |  |  |  |  |
| 10:30 AM -<br>12:00 PM  | 1-A General Session<br>(Pisgah/Roan Room)<br>Moderator: Virginia Spillman, CFM, PE  | 1-B Technical Session<br>(Pilot Room)<br>Moderator: Melonee Brock, CFM   | 1-C NCORR Western<br>NC Community Needs<br>Discussion (Dogwood)                          |  |  |  |
| Note: Duration of individual presentations is in brackets [ ].                | One [30]  "Florence After Five: The Storm's Lasting Legacy for Floodplains and Our State": Corey Davis (Assistant State Climatologist)  Two [30] Community Resiliency at the Individual Home Level: Impact Overview of NCORR's Homeowner Recovery Program: Jeffrey G. Royal (NCORR)  Three [30] Western North Carolina Landslide Assessment Tool Overview: David Korte, PhD, PG (NCGS)  | One [30] Nature-based Solutions for Flood Resilience Crystal Moore and Kirsten Ullman, CFM (KSI Associates of North Carolina)  Two [30] Leveraging Base Level Engineering for Electrical System Resilience and Mitigation Planning Alexander Burke, (AtkinsRéalis)  Three [30] Floodplain Design, Construction, and Impacts on Flood Insurance Drew Gerling (Floodproofing.com/Smart Vent Product, Inc.)   | Facilitator: Holly B. White,<br>AICP, CFM (NCORR)  |  |  |  |
| 12:00 – 1:15 PM   | LUNCH BUFFETT INCLUDED (Buffet Biltmore Foyer) (Roan, Pisgah, Pilot)  |  |  |  |  |  |
| 1:30 – 3:00 PM  Note: Duration of individual presentations is in brackets []. | 2-A Technical Session (Pisgah/Roan Room) Moderator: Kristin Caracappa, PE, CFM  One [30] Mecklenburg County 2D Modeling and Mapping Study, Mathew C. Hornack, PE, CFM, (Mecklenburg County) and Martha E. Cardona, PhD, PE (Freese and Nichols)  Two [30] Benefits of NCDOT's Partnership with NCDPS Concerning NFIP Compliance, Mapping, Flood Monitoring and Beyond, Brian M. Radakovic, PE, CFM (NCDOT) and Abhijit Patil, PhD (NCDPS)  Three [30] Beyond the Clouds: Exploring Google Earth Engine's Role in Long-Term Floodplain Management, Collins Owusu, PhD (AtkinsRéalis) | 2-B General Session (Pilot Room) Moderator: Jason Hetrick, PE, CFM  One [30] New FEMA Guidance and Requirements Concerning Equity and Climate Change, Chris Crew, CFM (NCEM)  Two [30] Engineer's Handbook to Advancing Equity, Lauren Sester, EI, CFM and Ummekulsoom Lalani, MPP, PMP (AtkinsRéalis)  Three [30] Leveraging BridgeWatch to Inform NCDOT Staff to Take Proactive Action to Protect Bridges and Culverts, Kurt Golembesky, PE, CFM (NCDOT) | 2-C CFM Review (Dogwood)  Facilitator: Steve Garrett, CFM, State NFIP Coordinator (NCEM) |  |  |  |
| 3:00 – 3:30 PM  | BREAK – Refreshments (Mitchell Room)  |  |  |  |  |  |

| Thursday, October 12 (cont.)   |   |   |  |  |  |
|--|---|---|--|--|--|
| 3:30 – 5:00 PM  Note: Duration of individual presentations is in brackets [ ]. | 3-A Technical Session (Pisgah/Roan Room) Moderator: Ken Vafier, CFM  One [30] FEMA BRIC Direct Technical Assistance Antionette A. Fowlkes (FEMA)  Two [30] Strengths and Weaknesses of 2D Flood Modeling and When Designers and Municipalities Should Use 2D vs 1D Flood Models, Kristin Caracappa, PE, CFM, (Kleinfelder)  Three [30] Rain on Grid Modeling with Real Time Rainfall Grids in HEC-RAS, U. Sidar Gul, PE, (ESP Associates) | 3-B General Session (Pilot Room) Moderator: James Scanlon, GISP, CFM  One [30] Developing 2D Mapping Products for the End User in SC, Jessica Artz, CFM (SCDNR Mapping Specialist)  Two [30] Building Collective Impact through Community Flood Mapping and the Sea Level Rise App Gabi Kinney (Wetlands Watch)  Three [30] Emphasizing Historic Preservation in Resiliency Alternatives, Mike Robinson, CFM (Brown and Caldwell) | 3-C CFM Review (Dogwood)  Facilitator: Steve Garrett, CFM, State NFIP Coordinator (NCEM) |  |  |
| 6:30 – 8:30 PM   | Conference Social (dinner included) (Pilot, Roan, Pisgah Rooms) Music Provided by David Reid & Robert Billings  |   |  |  |  |
| 7:30 – 11:00 PM  | Hospitality Suite Open (Room 220 Thomas Wolfe Suite)  |   |  |  |  |

| 7:30 – 8:30 AM  | Registration (Laurel Registration Area)   |  |   |  |
|---|---|--|---|--|
| 7:30 – 8:30 AM  | Morning Meet and Greet - (Pisgah Room)  |  |   |  |
| 8:30 – 10:00 AM  Note: Duration of individual presentations is in brackets [ ].   | 4-A General Session (Pisgah/Roan Room) Moderator: Kurt Golembesky, PE, CFM  One [30] Bracing for Floods on Historic Main Street, Adam Lovelady (UNC-Chapel Hill School of Government)  Two [30] A Comparative Analysis of Land-Use Pattern Accuracy and Dataset Preparation Time for Machine Learning- based Remote Sensing and Satellite Imagery Classification Arpit Maheshwari, PE, CFM (WSP)  Three [30] Insurance Can Be Fun Too!: Understanding Fundamental Insurance Concepts Supports Better Risk Communication, David Goldberg (Case Strategies Group) | 4-B Technical Session (Pilot Room) Moderator: Mathew C. Hornack, PE, CFM  One [30] RFD: An Automated Floodplain Mapping Software, Jay Balakrishnan EIT, CFM (AtkinsRéalis)  Two [30] Bringing Flood Maps to the 21st Century, Rahish Khatri, PE (AtkinsRéalis)  Three [30] 2D Floodway Modeling, Jason R. Currie, PE, CFM (FloodFocus Engineering, Inc.) | 4-C CFM Exam (Dogwood) 8:30 – 11:30 AM [3 hr]  Proctor: Bill Tingle, CFM Melonee Brock, CFM |  |
| 10:00 – 10:30 AM  | BREAK – Refreshments (Pisgah Room)  |  |   |  |
| 10:30 AM – 12:00 PM Note: Duration of individual presentations is in brackets []. | PLENARY SESSION 4: CLOSING PLENARY (Ballroom Roan/Mitchell) Moderator: Ken Ashe, PE, CFM (NCAFPM Chair)  North Carolina Geodetic Survey Update: Gary Thompson, PLS, Chief, NC Geodetic Survey [30]  Unpacking Louisiana v. Mayorkas, the Lawsuit Against FEMA's Risk Rating 2.0 Flood Insurance Program: Dr. Donald Hornstein, UNC School of LawThree [30]  Prize Giveaways (Must be Present to Win!): Ken Ashe, PE, CFM (Summit) [30]  |  |   |  |

#### **2023 Fall Floodplain Institute Presenters and Moderators**

Valerie Anderson, CFM (FEMA Region 4)

Laura Arnold, PE, CFM (AECOM), (NCAFPM Vice Chair)

Jessica Artz, CFM (ASFPM Chapter Director)

Ken Ashe, PE, CFM (NCAFPM Chair)

Jay Balakrishnan EIT, CFM AtkinsRéalis)

Maggie Battaglin, PMP, CFM (NCORR)

Melonee Brock, CFM (Mecklenburg County Storm Water P&C)

Alexander Burke (AtkinsRéalis)

Kristin Caracappa, PE, CFM (Kleinfelder)

Martha E. Cardona, PhD, PE (Freese and Nichols)

Tracey Colores (NCORR)

Chris Crew, CFM, (NCEM)

Jason R. Currie, PE, CFM (FloodFocus Engineering, Inc.)

Corey Davis, (Assistant State Climatologist)

Antionette A. Fowlkes (FEMA)

Steve Garrett, CFM, State NFIP Coordinator (NCEM)

Drew Gerling (Floodproofing.com/Smart Vent Product, Inc.)

Kurt Golembesky, PE, CFM (NCDOT)

Edgar Gomez (NCORR)

U. Sidar Gul, PE (ESP Associates)

Jason Hetrick, PE, CFM (McCormick Taylor)

Mathew C. Hornack, PE, CFM (Mecklenburg County)

Donald Hornstein, PhD (UNC School of Law)

Steven Jackson (Deputy Mitigation Section Chief NCEM)

Rahish Khatri, PE (AtkinsRéalis)

Sandra Kilgore, Vice Mayor of the City of Asheville

Gabi Kinney (Wetlands Watch)

David Korte, PhD, PG (NCGS)

Ummekulsoom Lalani, MPP, PMP (AtkinsRéalis)

Matt Lauffer, PE (Assistant State Hydraulics Engineer NCDOT)

Crystal Moore (KSI Associates of North Carolina)

Collins Owusu, PhD (AtkinsRéalis)

Abhijit Patil, PhD (NCDPS)

Brian M. Radakovic, PE, CFM (NCDOT)

Marc Recktenwald (NCDEQ)

Mike Robinson, CFM (Brown and Caldwell)

Jeffrey G. Royal, PhD (NCORR)

Amit Sachan, PE, CFM (AtkinsRéalis)

James Scanlon, GISP, CFM (Charlotte-Mecklenburg)

Lauren Sester, EI, CFM (AtkinsRéalis)

Virginia Spillman PE, CFM (City of Greensboro)

Gary Thompson, PLS (Chief, NC Geodetic Survey)

Bill Tingle, CFM, NCAFPM Executive Director

Kirsten Ullman, CFM (KSI Associates of North Carolina)

Ken Vafier, CFM, (New Hanover County)
Holly B. White, AICP, CFM (NCORR)

#### Thank you to our general sponsors:













#### Thank you to our break sponsors:

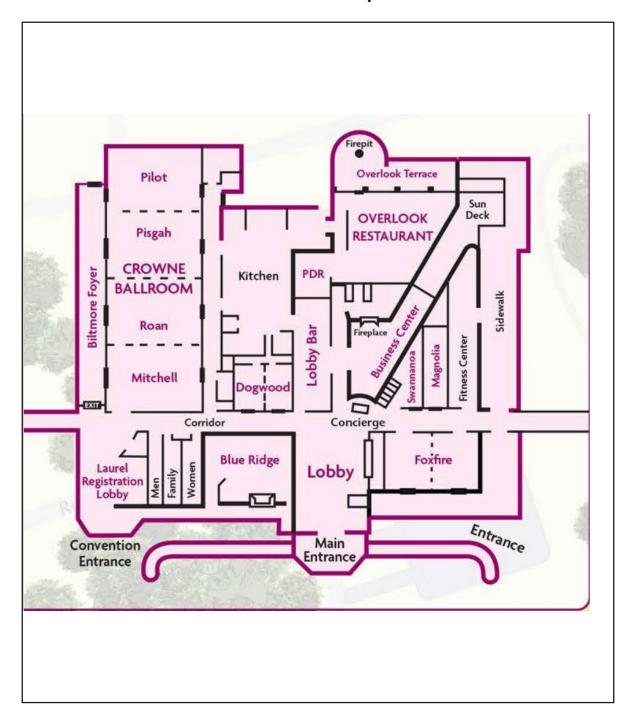








### **Crowne Plaza Floorplan**



rev. 10/5/2023 5