

ASFPM Annual National Conference 2011

Flood Risk Management: The Winning Ticket

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PRESENTATIONS AND TECHNICAL PAPERS

Plenary Session 1

WELCOME ADDRESS

Greg Fischer, Mayor, City of Louisville

THE STARTING GATE: The vision for Managing Risk to People, Property, and Natural Resources

Kevin Shafer, Executive Director, Milwaukee Metropolitan Sewerage District

[Regional Comprehensive Effort: Milwaukee WI Metro Area](#)

Mark P. Smith, Director, Eastern U.S. Freshwater Program, The Nature Conservancy

[Partnership Comprehensive Effort: Working Together to Achieve Multiple Benefits](#)

Herbert "Bud" Schardein, Jr., Executive Director, Metropolitan Sewer District of Louisville and Jefferson County

Moderator: Greg Main, CFM, ASFPM Chair; State Floodplain Manager, Indiana DNR

Keynote Luncheon

AND THEY'RE OFF! Watershed Approaches to Reduce Flood Risk in the Napa Valley

Jill Techel, Mayor, Napa, CA

[Napa River - Napa Creek Flood Protection Project](#)

[Napa River - Napa Creek Flood Protection Project](#)

Scott Edelman, P.E., ASFPM Foundation President

[ASFPM Foundation](#)

Plenary Session 2

NAVIGATING THE TURN: Managing Flood Risk Associated with Levees via the Policy and Program Nexus of Flood Maps, Levees, and Flood Insurance

Doug Bellomo, P.E., CFM, Director, Flood Hazard Mapping, Risk Analysis Division, FEMA-DHS:

[How is RiskMAP addressing this key policy and political nexus?](#)

Alex Dornstauder, Deputy Chief, Office of Homeland Security, US Army Corps of Engineers:

[What are the Corps of Engineers programs and policies impacting levees?](#)

Jim Fiedler, P.E., DWRE, President, National Association of Flood and Stormwater Management Agencies (NAFSMA); Chief Operating Officer, Water Utility Enterprise, Santa Clara Valley Water District:

[What challenges face communities and levee owners to manage and communicate flood risk?](#)

Sam Riley Medlock, JD, CFM, Policy and Partnerships Program Manager, ASFPM:

[Connecting the Dots](#)

Moderator: Sally McConkey, P.E., CFM, ASFPM Vice Chair; Water Resources Engineer, NIRS, Illinois State Water Survey

Plenary Session 3

THE BACK STRETCH - Federal Efforts to Integrate Flood Risk Management Approaches

Colonel Alvin Lee, Executive Director, Civil Works, US Army Corps of Engineers:

[Operation Watershed - Flood Fighting the MR&T](#)

Dr. Sandra Knight, P.E., DWRE, Deputy Federal Insurance and Mitigation Administrator, Mitigation Division, FEMA-DHS:

[FEMAS's Challenges and Opportunities for Managing Flood Risk and Floodplain Resources](#)

Moderator: Larry Larson, P.E., CFM, Executive Director, ASFPM

Plenary Session 4

THE FINISH LINE - Managing Flood Risk and Natural Resource Risk in a Changing World

Margaret Davidson, Director, Coastal Services Center, NOAA:

Changes Impacting River and Coastal Natural Floodplain Functions and Resources

Jim Mullen, President, National Emergency Managers Association; Director, Washington State Emergency Management Division
Wise Planning to Reduce Risk and Support Sustainable Communities

David Batker, Chief Economist and Executive Director, Earth Economics, Tacoma, WA

[How to Put a Value on Ecosystem Services](#)

Moderator: Chad Berginnis, CFM, ASFPM Associate Director

ASFPM Annual National Awards Luncheon

ASFPM Award Recipients

ASFPM FOUNDATION COLLEGIATE STUDENT PAPER COMPETITION

Project Safe Haven: Vertical Evacuation Opportunities on the Washington Coast

Jeana Wisner, University of Washington

TECHNICAL PAPER.....11

The Effect of Urban Development on Lag Time in the Banklick Creek Watershed, KY

Katelyn Toebbe, University of Louisville

TECHNICAL PAPER.....19

Uncertainty Analysis in Flood Inundation Mapping

Younghun Jung, Venkatesh Merwade, Purdue University

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CONCURRENT SESSIONS

Concurrent Session A - May 17, 2011

A1- Understanding and Managing Sea Level Rise

A1 - New Mapping Tool and Techniques for Visualizing Sea-Level Rise and Coastal Flooding Impacts N/A

Doug Marcy, NOAA Coastal Services Center

A1 - Assessing Changing Coastal Flood Hazard Risk in Response to Projected Changes in Sea-Level and Storminess N/A

John Dorman, CFM, North Carolina Floodplain Mapping Program; Jerry W. Sparks, P.E., CFM, Dewberry

A2 - CDM Showcase: Jacksonville, FL - A Modeling, Mapping, Community Engagement Story

A2 - Evaluation of Analytical Techniques for Production of a Sea Level Rise Advisory Mapping Layer for the NFIP N/A

A1 - A Comprehensive Master Plan with Floodplain Protection Goals N/A

Jerry W. Sparks, P.E., CFM, Dewberry Michael F. Schmidt, P.E., ECEE, CDM

A2 - Mapping the Risk and Engaging the Public: The Key to a Successful Public Outreach Program N/A

Lisa Sterling, P.E., CDM, Patrick Victor, P.E., DWRE, CDM

A2 - Using the Power of SWMM Unsteady Modeling for CLOMR Applications N/A

José Maria Guzmán, P.E., Gaston Cabanilla, P.E., CFM, Sandeep Gulati, CFM, Michael F. Schmidt, P.E., BCEE,

Tom Nye, Seungho Song, P.E., CFM, CDM

A3 - Building Codes and Floodplain Management

A4 - Mitigation Techniques for Difficult Flood Problems

A4 - Tunnel of Love or Tunnel Vision - Addressing a Century of Major Flooding in the Passaic River Basin N/A

John A. Miller, P.E., CFM, Princeton Hydro, LLC

A4 - Using all the Tools for Success – Flood Mitigation in SPAM Town N/A

Brad Woznak, P.E., CFM, SEH, Inc.; Jon Erichson, P.E., City of Austin, MN

A4 - Louisiana Community Achieves Mitigation Success with First Elevation Project

Jeffrey S. Heaton, Providence; Holly L. Fonseca, St. Charles Parish

TECHNICAL PAPER.....30

A5 - Flood Risk Management & Levees in a Changing Climate

A6 - RiskMAP Outreach & Discovery Process

A7 - General Modeling Issues

A7 - 'Art' of Calibration in the 'Science' of H&H Modeling N/A

Amit Sachan, PE, CFM, Dewberry; Robert Billings, PE, PH, CFM, Mecklenburg County

A7 - Analyzing Downstream Impacts Associated with the Proposed Fargo-Moorhead Diversion Project Using Unsteady HEC-RAS N/A

Gregg Thielman, PE, CFM, Houston Engineering, Inc.; April Walker, PE, CFM, City of Fargo, ND

A7 - A Holistic and Integrated Approach to Floodway Modeling/Delineation N/A

Michael A. Hanson, PE, LEED AP, Shweta Chervu, PE, CFM, Dewberry

A8 - Technology & Risk Communication

Concurrent Session B - May 17, 2011

B1 - 2010 Flood Events in Review

- B1 - [The Great March Floods of 2010 in Rhode Island](#) N/A
Edward J. Capone, CFM, NOAA/National Weather Service
- B1 - [The Significance of the 2010 Pakistan Floods to the United States](#) N/A
Zachary Baccala, CFM, Atkins
- B1 - [Nashville Flood Recovery Efforts – Assessing Damage to Homes and Stormwater Infrastructure](#) N/A
Cynthia Popplewell, PE, CFM, Bimal Shah, AMEC Earth & Environmental, Inc.

B2 - AECOM Showcase

- B2 - [The New FIS: What has Changed and What Does the Future Hold?](#) N/A
Andy Bonner, PE, CFM, AECOM; Scott McAfee, GISP, CFM, FEMA Region IX
- B2 - [Proposed Landuse Categories for WHAFIS Modeling on County-wide Scales](#) N/A
Paul Carroll, PE, AECOM

B3 - Regulations

B4 - State Mitigation Programs

- B4 - [Building Safer, Smarter and Stronger: A State's Commitment of Avoiding Future Losses](#) N/A
Shane Rauh, CFM, LEM, Shaw Environmental and Infrastructure
- B4 - [An Ounce of Prevention: Vermont's Strategies for Managing Rivers toward Equilibrium](#) N/A
Ned Swanberg, CFM, Rebecca Pfeiffer, CFM, Vermont Agency of Natural Resources

B5A - Restoring Beneficial Functions After a Structural Project

B5B - Risk Assessment Tools for Dam Breaches

- B5B - [Consequence Estimation for Dam Failure Scenarios](#) N/A
Kurt Buchanan, CFM, US Army Corps of Engineers
- B5B - [Dam Hazard Consequence Assessment Pilot Studies](#) N/A
James Demby, P.E., National Dam Safety Program, FEMA-HQ; Sam Crampton, PE, CFM, Dewberry

B6 - Levee Outreach

B8 - RiskMAP Guidance, Specifications, and Metrics

Concurrent Session C - May 17, 2011

C1 - ASFP Coastal Issues

- C1 - [Beach Management: How Shifting Legal and Policy Frameworks May Affect State/Local Efforts to Reduce Risk](#) N/A
Ed Thomas, Esq., Michael Baker Jr., Inc. on behalf of ASFP Coastal Issues Committee
- C1 - [FEMA Mapping Requirements for Beach Nourishment](#) N/A
Chris Mack, P.E., AECOM

C2 - Dewberry Showcase: Bringing RiskMAP Products and Tools to Life

- C2 - [How Sweet the Suite of RiskMAP Products is for Metro Atlanta: A Sneak Peek at Early Implementation of RiskMAP Products Developed for Georgia's Upper Chattahoochee River Basin Project](#) N/A
Shannon Brewer, CFM, Dewberry
- C2 - [RiskMAP products – Early Implementation in FEMA Region II](#) N/A
Milver Valenzuela, PMP, CFM, GISP; Scott Choquette, CFM, Dewberry; Alan Springett, FEMA Region II

C3A - Post Disaster Activities

C3B - Warning Systems and Flood Prediction

C4 - Risk Assessment Tools And RiskMAP

- C4 - [The Diversity of HAZUS: Uses for HAZUS Beyond Mitigation Planning](#) N/A
Rob Flaner, CFM, Ed Whitford, Tetra Tech
- C4 - [True Flood Loss Analysis: Integrating both Depth Grid and Specific Building Inventories](#) N/A
Jason Rutter, CFM, CoreLogic
- C4 - [Using HAZUS for the Flood Risk Assessment Dataset within FEMA Risk-MAP Studies](#) N/A
Dr. Shane Parson, PE, CFM, URS Corporation; Craig Kennedy, PMP, CFM

C5 - Levee Acronym Fun: PALs & EAPs

C6 - Innovative Risk Communication

C7 - Innovations in Floodplain Mapping Technology

- C7 - [iFlood - Mobile Flood Hazard Mapping](#) N/A
Josh Price, GISP, CFM, Tim Brink, PE, Atkins
- C7 - [Optimizing Floodplain Delineation Through Surface Model Generalization - Case Study in FEMA Region VII Iowa](#) N/A
Ginger Dadds, P.E., CFM, Greenhorne & O'Mara
- C7 - [Data, Maps and Risk: How Good is Good? Tropical Storm Nicole Case Study](#) N/A
Kenneth W. Ashe, P.E., CFM, Thomas E. Langan, P.E., CFM, North Carolina Floodplain Mapping Program

Concurrent Session D - May 18, 2011

D1 - Coastal Adaptation to Sea-Level Rise and Climate Change

- D1 - [A Cost-Effective Method for Determining if Your Community is at Risk from Sea-Level Rise and Recommendations to Modify Your Flood Provisions and Building Codes](#) N/A
Eric C. Coughlin, CFM, GISP, Adam J. Reeder, P.E., CFM, Atkins
- D1 - [Rising Tides: West Coast Sea Level Rise Implications for Infrastructure Improvements and Coastal Flood Protection](#) N/A
Darryl Hatheway, CFM, AECOM
- D1 - [Changing Climate and Land Use: Consequences to 100-Year Flooding in the Lamprey River Watershed of New Hampshire](#) N/A
Dr. Cameron Wake, Fay Rubin, University of New Hampshire

D2 - Tetra Tech Showcase: Navigating Your Levees Compliance, Variances, and Insurance

- D2 - [Levee Decertification and CRS: How a Catch-22 Can Catch You](#) N/A
Rob Flaner, CFM, Tetra Tech
- D2 - [Research on the Effects of Woody Vegetation on Levee Performance](#) N/A
Maureen K. Corcoran, PhD, RPG, Joe Dunbar, U.S. Army Engineer Research and Development Center
- D2 - [Setback Levees: Hydraulic, Ecologic, and Economic Benefits](#) N/A
Tony Melone, PhD, P.E., CFM, Tetra Tech
- D2 - [Levee Seepage: Concerns, Evaluations, and Solutions](#) N/A
Pete Nix, P.E., Tetra Tech
- D2 - [FEMA Responses on Levee Certification Submittals](#) N/A
Patti Sexton, P.E., CFM, Tetra Tech

D3 - Higher Standards

D4 - Mitigation Planning

- D4 - [Next Generation Hazard Mitigation Plan Vulnerability Analysis Strategies to Integrate Core Data Sets into HIRAs: Highlights of RiskMAP Data Opportunities in State, Regional, and Local HIRA Updates](#) N/A
Deborah G. Mills, CFM, Dewberry; Tim W. Keaton, CFM, West Virginia Division of Homeland Security and Emergency Management
- D4 - [Historic Preservation in Light of Historic Devastation Part 4: Sacred Sites and Cultural Assets](#) N/A
Mike J. Robinson, CFM, AECOM
- D4 - [Hazard Mitigation Planning: The Logical Starting Point for Comprehensive Floodplain Management Planning](#) N/A
Ronald D. Flanagan, CFM, Flanagan & Associates, LLC

D6 - Floodplain Management Outreach & Program Analysis

D7 - LiDAR

- D7 - [Against All Odds: Assembling a Statewide LIDAR Coalition in Tough Economic Times](#) N/A
Carey Johnson, Peter Goodmann, Kentucky Division of Water; Scott Edelman, P.E., AECOM; Steve McKinley, P.E., URS Corporation; Mike Ritchie, P.E., PhotoScience
- D7 - [National Enhanced Elevation Data Assessment: Relevance to Floodplain Mapping](#) N/A
David F. Maune, PhD, CP, CFM, Dewberry; Gregory I. Snyder, U.S. Geological Survey
- D7 - [Hydroenhancement of LiDAR Data to Support Floodplain Modeling](#)
Mark W. Ellard, P.E., CFM, Thomas Amstadt, P.E., CFM, Geosyntec Consultants, Inc.; Ed Beute, PSM, CP, Aerial Cartographics of America, Inc.

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D8A - Digital Vision in RiskMAP

D8B - International Perspective

Concurrent Session E - May 18, 2011

E1 - Great Lakes Coastal Wave Modeling

- E1 - [Great Lakes Flood Hazard Mapping Overview](#) N/A
Ken Hinterlong, FEMA Region V; Greg Mausolf, U.S. Army Corps of Engineers
- E1 - [Great Lakes Flood Hazard Mapping Project - Data Development](#) N/A
Bruce Ebersole, U.S. Army Corps of Engineers
- E1 - [Updated Great Lakes Coastal Methodology - Event vs. Response Analysis](#) N/A
Pete Zuzek, CFM, Baird and Associates

E2 - USACE Showcase

- E2 - [Interagency Silver Jackets Teams Today: Practices and Opportunities in RiskMAP, Levee Safety Portfolio Management, Floodplain Management Services, and Planning Assistance to States](#) N/A
Randy Behm, P.E., CFM, USACE - Omaha District

E3 - Floodplain Management Economics

E4 - ASFPM Nonstructural Floodproofing Committee Sponsored Session: Nonstructural Measures Reduce Flood Risk - Examples Criteria, and Studies

- E4 - [Nonstructural Flood Risk Reduction Considerations for the Red River of the North](#) N/A
Randall L. Behm, P.E., CFM, USACE - Omaha District
- E4 - [Criteria for Maximum Elevation of Residential Buildings in Floodplains](#) N/A
William Coulbourne, PE, Applied Technology Council

E5 - Running the Gauntlet: When Locals Need to Modify Federally-Authorized Flood Control Projects Under Section 408

E6 - Stormwater Management Practices

E7 - Flood Documentation and Inundation Mapping

- E7 - [Martin Kentucky High Water Marks and Inundation Limit: A May 2009 Retrospective](#) N/A
Joe Trimboli, CFM, US Army Corps of Engineers
- E7 - [Innovative Collection and Applications of First Floor Elevation Data to Support Hazard Risk Management](#) N/A
Andrew Hadsell, P.E., CFM, AMEC Earth & Environmental
- E7 - [U.S. Geological Survey Flood Inundation Mapping Initiative](#) N/A
Scott E. Morlock, U.S. Geological Survey

E8 - Using Technology for RiskMAP Outreach

Concurrent Session F - May 19, 2011

F1 - Regional Coastal Study Updates

- F1 - [FEMA Region IX California Coastal Analysis and Mapping Project \(CCAMP\) and the Open Pacific Coast Flood Studies](#) N/A
Darryl Hatheway, CFM, Vince Geronimo, P.E., CFM, AECOM
- F1 - [Coastal Flood Hazards in San Francisco Bay-A Detailed Look at Variable Local Flood Responses](#) N/A
Krista Conner, Lisa Winter, Michael Baker Jr., Inc.
- F1 - [Coastal Flood Hazard Study for New Jersey & New York City](#) N/A
Jeff Gangai, CFM, Dewberry; Alan Springett, FEMA Region II

F2 - FEMA's Flood Insurance & Mitigation Administration's Risk Reduction Showcase

- F2 - [FEMA Mitigation Grants](#) N/A
Tony Hake, FEMA-HQ
- F2 - [FEMA Building Sciences](#) N/A
Edward Laatsch, P.E., FEMA-HQ

F4 - Extreme Rain Events and Mitigation Challenges

- F4 - [Establishing an Improved National Capability for Collection of Extreme Storm and Flood Data](#) N/A
Robert R. Mason, Jr., P.E., U.S. Geological Survey
- F4 - [High Impact Weather Events - A Challenge for Hazard Mitigation Plans and Flood Response Plans](#) N/A
John F. Henz, CCM, Dewberry
- F4 - [One Community's Disaster: Turning It Into Another Community's Warning](#) N/A
Kenton C. Ward, CFM, Hamilton County (Indiana) Surveyor's Office; Peggy Shepherd, P.E., CFM, Christopher B. Burke Engineering

F5 - Levee Inspections and Levee Databases

F6 - Stream Restoration

F7A - Gridded Floodplain Data

F7A - [RiskMAP Risk Assessment Product Suite Early Demonstration Using the Greenville County, SC CTP Project](#) N/A
Andy Bonner, P.E., CFM, Daryle Fontenot, P.E., CFM, AECOM

F7A - [New LiDAR-Based Tools for Visualizing the Flood Hazard: A RiskMAP Early Demonstration Project in Coos County, Oregon](#) N/A
Jed Roberts, CFM, Oregon Department of Geology and Mineral Industries

F7A - [Velocity Grids](#)
Don Glondys, CFM, URS Corporation; John Ingargiola, CBO, CFM, FEMA-HQ

F7B - Issues in Hydrology

F8 - RiskMAP Early Demonstrations and CTP Partnerships

Concurrent Session G - May 19, 2011

G1 - Identifying and Communicating Coastal Risks

G1 - [FEMA Region III Coastal Hazard Analyses and Outreach](#) N/A
Christine Estes Worley, P.E., CFM, URS Corporation; Jeff Gangai, CFM, Dewberry; Robin Danforth, P.E., CFM, Dave Bollinger, CFM, FEMA Region III

G1 - [Targeting Traditional Audiences with Non-Traditional Tools: The Successes and Challenges of StormSmart Connect](#) N/A
Wesley Shaw, Blue Urchin Consulting

G1 - [Risk Assessment: Identification of New Coastal Flood Hazard Analysis](#) N/A
Brian Caufield, P.E., CFM, Edie Vinson-Wright, CFM, CDM

G2 - ASFPM International Committee Sponsored Session

G3 - The NFIP and Environmental Concerns

G4 - Challenges for Applications and Implementation

G4 - [Rapid Development of a Flood Acquisition Project](#) N/A
Drew Whitehair, Michael Baker Jr., Inc.; Chad Berginnis, CFM, ASFPM

G4 - [The Key: What FEMA Region IV and it's State Partners are Doing to Unlock the Mysteries of Application Requirements for FEMA's Hazard Mitigation Assistance Grant Programs](#) N/A
H. Camille Crain, Jacky Bell, FEMA Region IV

G4 - [Capitalizing on Executive Order Authority for Mitigation](#) N/A
Mark Eberlein, FEMA Region X

G5 - RiskMAP & Dam Failures

G6 - Mapping Outreach

G7 - Floodplain Mapping Processes

G7 - [The rFHL/NFHL & WIIFM \(What's In It For Me?\)](#) N/A
Michelle Bough, GISP, Andrea Weakland, Stantec Consulting Services, Inc.

G7 - [Working with Community Based Hydrology in a Watershed World](#) N/A
Amy Bergbreiter, P.E., CFM, Monica Urisko, P.E., CFM, Atkins

G7 - [Implementing Automated Techniques to Improve Workflow](#) N/A
Mark A. Zito, GISP, CFM, CDM

G8 - RiskMAP Early Demonstration

Concurrent Session H - May 19, 2011

H1 - Coastal Data and Modeling

H1 - [Comparison of Wave Climate Analysis Techniques in Sheltered Waters](#) N/A
Timothy S. Hillier, P.E., CFM, Lauren Klonsky, CDM

H1 - [Enhanced Mapping of Combined Rate or Return Values: Incorporation of 2-D Results](#) N/A
Guillermo Simón, P.E., CFM, Taylor Engineering, Inc.

H1 - [Case Study on Impacts of Evolving Nearshore Bathymetry and Topography on Base Flood Elevations and Implications for Stakeholders](#)
D. Michael Parrish, PhD, P.E., CFM, Greenhorne & O'Mara, Inc.

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H2 - ASFPM's Arid Regions Committee Sponsored Session

H2 - [Riverine Erosion Hazards & Floodplain Management: A White Paper](#) N/A
Jon Fuller, P.E., RG, PH, CFM, JE Fuller/Hydrology & Geomorphology, Inc.

H2 - [Updating Alluvial Fan Floodplain Delineation Guidelines \(FEMA Appendix G\) - Update on the Arid Regions Committee Discussion Paper](#) N/A
Jon Fuller, P.E., RG, PH, CFM, JE Fuller/Hydrology & Geomorphology, Inc.

H3 - Community Rating System

H4A - Decision-Making and Prioritizing Mitigation Options

H4A - [A Structured Decision Support System For Flood Mitigation](#) N/A
Raymond Laine, Brett Lamass, UOW (Australia)

H4A - [Charlotte-Mecklenburg Flood Risk Assessment and Risk Reduction Plan](#) N/A
Timothy J. Trautman, P.E., CFM, Charlotte-Mecklenburg Storm Water Services; Darrin R. Punchard, AICP, CFM, AECOM

H4A - [FEMA's National Flood Mitigation Data Collection Tool \(NT\); Your Winning Ticket for the Triple Crown of NFIP Data Management, HMA Applications and Conducting CACs and CAVs](#) N/A
Errol Garren, CPCU, CFM, FEMA-HQ

H4B - Stormwater Funding and Mitigation Projects

Funding Flood Mitigation While Frustrating Plaintiff Attorneys
Warren Campbell, PhD, PE, CFM, Western Kentucky University

TECHNICAL PAPER.....48

H6 - Transportation Issues in Floodplain Management

City of Fort Worth's Roadway Flood Hazard Assessment
Steven E. Eubanks, PE, CFM, City of Fort Worth, TX

TECHNICAL PAPER.....54

H7 - 2-D Modeling Issues

H7 - [Complex Urban Drainage in Houston Texas Solved with 2D Modeling](#) N/A
Matthew Manges, CFM, Derek St. John, P.E., CFM, Lockwood, Andrews & Newnam, Inc.

H7 - [2-D Modeling as a Calibration Tool for Riverine Floodplain Analysis in the Front Range of Colorado](#)
Alan Turner, P.E., CFM, Cory Hooper, P.E., CFM, CH2M HILL

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H7 - [2-D Modeling of the Dallas Love Field Storm Drainage System](#) N/A
Dr. Gerardo Ocañas, P.E., DWRE, CFM, Huitt-Zollars, Inc.

H8 - Inundation Mapping