



**NHWC**  
CONFERENCE

LOUISVILLE • 2019

*Observe, Disseminate, Respond: The Triple Crown*



**JUNE 17-20, 2019**

**13TH BIENNIAL TRAINING  
CONFERENCE & EXPOSITION**

*Observe, Disseminate, Respond: The Triple Crown*

**THE GALT HOUSE HOTEL | LOUISVILLE, KENTUCKY**



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Welcome to the National Hydrologic Warning Council's 2019 Training Conference & Exposition. We have an outstanding lineup of training workshops, plenary and lunch speakers, and technical presentations to keep you abreast of emerging hydrologic warning science and technology as well as "best practices" to help keep your hydrologic warning systems running smoothly.

Our host, the historic Galt House Hotel, with its dedicated staff, has worked hard to create a functional and splendid environment for the conference. Personally, I like the fact our conference is on the banks of the mighty Ohio River. And it's timely that this year's conference is in the Midwest where widespread flooding has and is occurring this summer to remind us the importance of all the components of hydrologic warning. This year's theme - Observe, Disseminate, Respond - sums it up very well, but we all know it takes planning, preparation, practice, accurate measurements, data, effective public communication, documentation, money, teamwork, learning from failures, patience, and passion.

Exhibitors and sponsors are key components of the conference. Their service to our industry and participation in the conference is deeply appreciated. Stop by the exhibits and learn about all the innovative new products and services they've prepared for you.

Networking opportunities are a highlight of our conferences. Take advantage of our session breaks, lunches, dinners, the hospitality suite, and the awards banquet to renew acquaintances and make new friends. We are an eclectic flood warning family with folks from federal, state, regional, and local agencies as well as consultants and contractors, so don't be shy. On Tuesday evening we are especially excited to host a dinner and networking event on the Belle of Louisville riverboat on the Ohio River. Don't miss a great chance to experience the beautiful river, good food and music.

Many thanks to Brad Heilwagen, David Curtis, Brandon Terry, Chris Crompton, April Krieg, Ben Pratt, Sharliss Arnold, and the many other planning committee members whose tireless efforts were essential in creating a memorable conference experience for you.

The NHWC is the largest professional organization exclusively serving the hydrologic warning community. Our members represent the most active elements of flood risk mitigation through hydrologic warning. Jump in and experience this year's conference and training opportunities to the fullest. Share what you know with others, learn from the best, and put new ideas to work when you get back home!



**Steve Fitzgerald**  
**NHWC PRESIDENT**

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#### 2017-2019 NHWC OFFICERS

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##### **PRESIDENT**

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Houston, Texas

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Wood Environment & Infrastructure Solutions, Inc.  
Nashville, Tennessee

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Susquehanna River Basin Commission  
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#### 2019 CONFERENCE PLANNING COMMITTEE

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##### **CONFERENCE CHAIR**

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April Krieg  
David Rivera



## INTRODUCING OUR KEYNOTE SPEAKERS

### PLENARY SESSION - Wednesday, June 19, 8:40 to 9:20 AM



**José Luis Valenzuela, MSEM, CFM**

State Hazard Mitigation Officer, Commonwealth of Puerto Rico

In his capacity as SHMO, Mr. Valenzuela is the primary contact with FEMA, other Federal agencies, and local governments in mitigation planning and implementation of mitigation programs and activities. He serves as the point of contact for project management and administration and helps ensure program guidelines are being followed and appropriate and worthwhile mitigation projects are selected. His career started in 1998 at the Puerto Rico Planning Board (PRPB), where he led and managed special projects and participated on committees such as the Puerto Rico Infrastructure Committee. He then joined the Municipality of Ponce, where he led all FEMA/DHS programs that the Municipality participated. Mr. Valenzuela has also served as an Associate Member and Vice-President of the PRPB, the lead agency that manages the development in the Island, and as an

Associate Member of the Adjudicative Board, responsible for the evaluation and determination of all discretionary permit applications.

### PLENARY SESSION - Wednesday, June 19, 9:20 to 10 AM



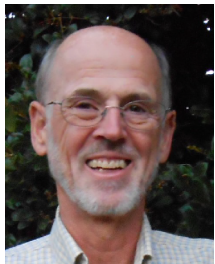
**Chad Wagner, PE**

Program Coordinator, USGS Groundwater & Streamflow Information Program

Having been with the USGS since 2000, Chad's experience has allowed him to gain a strong understanding and appreciation for the way USGS collects, processes and delivers our streamflow and groundwater information. Chad recently moved into the GWSIP Coordinator role from his position as the Associate Director of the USGS South Atlantic Water Science Center (NC-SC-GA), where he provided leadership over a very diverse group of scientists that conduct data collection and research/investigations related to topics such as hydraulic, hydrologic and groundwater modeling, tracking the movement of groundwater contamination, and groundwater and surface-water quality. From his early days with the USGS, Chad has been involved in hydroacoustics and has helped shape the USGS advancements in streamflow measurement techniques since the mid 2000's. Chad holds

degrees in Civil/Environmental Engineering from the University of Tennessee and is a licensed Professional Engineer.

### LUNCHEON - Wednesday, June 19, 12 to 1:30 PM



**French Wetmore, CFM**

President, French & Associates, Ltd.

French Wetmore has worked in floodplain management since 1972, first as a local official, then as Chief of Local Floodplain Programs for the Illinois Division of Water Resources and State Flood Insurance Coordinator. Since 1988, he has been President of French & Associates, a floodplain management consulting firm. French's floodplain management accomplishments include being a founder and Chair of the Association of State Floodplain Managers, recipient of the Goddard-White Award and the Illinois Association's Lifetime Achievement Award, President of the Certification Board of Regents, and Chair of the Final Report Working Group for the American Institutes of Research's Evaluation of the National Flood Insurance Program. He served on active duty as an Army infantry officer, 1968 - 1971, including a tour in Vietnam as a platoon leader and company commander with the First

Cavalry Division. He then served in the Illinois National Guard for two years and in the Army Reserves for 15 years. He retired as a Reserve Lieutenant Colonel in Military Intelligence in 1995. French has a B.A. in Government from Indiana University and an MPA from Syracuse University.

### LUNCHEON - Thursday, June 20, 12 to 1:30 PM



**Edward Clark**

Director, NWS National Water Center & Deputy Director, NWS Office of Water Prediction

As Director, Ed oversees operations at the NWC, supports the management and strategic direction of the OWP, and facilitates collaborative efforts to evolve NOAA's water prediction capabilities with federal, academic and private partners, the National Science Foundation (NSF), and the National Center for Atmospheric Research (NCAR), among others. For the past 3 years, Ed has led the NWC's Innovator's Program on behalf of the OWP, working with NSF, the Consortium of Universities for the Advancement of Hydrologic Sciences, Inc (CUAHSI), and federal partners including the USGS and USACE, to explore and develop next generation national flood forecasting and emergency response operations. Before becoming NWC Director, Ed served as the Director of OWP's Geo-Intelligence Division (GID). He co-chairs the Federal Advisory Committee on Water Information (ACWI)

Subcommittee on Spatial Water Data, which is charged with leading the Open Water Data Initiative by the Federal Geographic Data Committee. He worked with multiple Federal agency partners, including USGS, USACE and FEMA, on a variety of projects associated with the Integrated Water Resources Science and Services (IWRSS) consortium. Ed began his career in the NWS as an operational hydrologic forecaster, working as a Senior Hydrologist at the Colorado Basin River Forecast Center in Salt Lake City, and later served in NWS Headquarters as the National Flash Flood Service Leader. Ed earned his B.S. in Civil and Environmental Engineering from the University of Utah.

# LOUISVILLE • 2019 CONFERENCE AGENDA

## Monday, June 17, 2019

12 PM - 7 PM	REGISTRATION - <i>Rivue Tower 3rd Floor Registration Desk</i>
1 PM - 4:30 PM	GOLF SCRAMBLE - <i>Covered Bridge Golf Course, Sponsored by High Sierra Electronics</i> (additional fee applies, \$35 per player)
4 PM - 7 PM	EXHIBITOR SET-UP - <i>Archibald Ballroom</i>
5 PM - 8 PM	ALERT2 TECHNICAL WORKING GROUP MEETING - <i>McCreary Room</i>
6 PM - 8 PM	NHWC BOARD OF DIRECTORS MEETING - <i>Vincenzo's Italian Restaurant</i>
8 PM - 11 PM	NETWORKING AND HOSPITALITY SUITE - <i>See Registration Desk for Location Information</i>

## Tuesday, June 18, 2019

7 AM - 5 PM	REGISTRATION - <i>Rivue Tower 3rd Floor Registration Desk</i>			
8 AM - 12 PM	EXHIBITOR SET-UP - <i>Archibald Ballroom</i>			
8 AM - 12 PM	FIELD TOURS - <i>Falls of the Ohio &amp; McAlpine Lock and Dam</i> (Bus pick-up at 8 AM, Galt House Main Entrance)			
12 PM - 5:30 PM	EXHIBITOR HALL OPEN			
	<b>TRAINING WORKSHOPS</b> <i>Daisy Room</i>	<b>TRAINING WORKSHOPS</b> <i>McCreary Room</i>	<b>TRAINING WORKSHOPS</b> <i>Beckham Room</i>	<b>TRAINING WORKSHOPS</b> <i>Cochran Ballroom</i>
8:30 AM - 10 AM	NovaStar 5.0 Base Station <i>Markus L. Ritsch, Steve Malers, Thaddeus Diede &amp; Catherine Lane TriLynx, Inc.</i>	Enhancements to HSE Hardware <i>Carrie Lery &amp; Tom Ogden High Sierra Electronics</i>	How Do You Model a Flood Anyway? <i>Baxter Vieux · Vieux and Associates</i>	Improving Flood Intelligence for the Sacramento & San Joaquin River Systems Using NWS CA-NV Forecast Data <i>Chris Ferrari · GEI Consultants</i>
10 AM - 10:30 AM	BREAK - <i>Foyer, Sponsored by OTT HydroMet</i>			
10:30 AM - 12 PM	Sensors, Standards and Stakeholders <i>Jeffrey Booth · Department of Homeland Security, Science and Technology Directorate, David Alexander · DHS Flood Apex Program, Chad Berginnis · ASFPM, Josh McSwain · Charlotte-Mecklenburg County, Carey Johnson · Kentucky Division of Water</i>	An Interactive Workshop to Configure Your ALERT2 or DCP Site in Minutes <i>Ryan Guerrero &amp; Mike Nelson · Campbell Scientific, Inc.</i>	Setting Up the JEFDAQ Data Collection Software <i>Brian Iserman &amp; Peter Acton JE Fuller Hydrology &amp; Geomorphology, Inc.</i>	Bulletin 17C Flood Frequency <i>Robert Mason · USGS Headquarters</i>
12 PM - 1:30 PM	LUNCH - <i>Archibald Ballroom, Sponsored by Evigia Systems</i>			
1:30 PM - 3 PM	Twenty-Two Vision - Leveraging the Power of Live Cameras in Contrail® <i>Scott Bores &amp; Charles Yost · OneRain, Inc.</i>	ALERT2 IND API 2.0 <i>Adam Torgerson &amp; David Van Wie Blue Water Design</i>	Activity 610: Flood Warning & Response <i>Al W. Goodman, Jr. · AWG Consulting, LLC</i>	Application of HEC RTS for Local Flood Forecasting <i>Eric Tichansky &amp; Michael Borchers USACE Hydrologic Engineering Center</i>
3 PM - 3:30 PM	BREAK - <i>Archibald Ballroom, Sponsored by RESPEC Consulting &amp; Services</i>			
3:30 PM - 5 PM	Stormwater and TMDL Monitoring Tools and Techniques for Effective Reporting <i>Janice Yasui · SonTek, a Xylem brand Kerry Hubbard · YSI, a Xylem Branch</i>	ALERT2 Updates and Their Impacts on Operations and Maintenance <i>Mark Moore · Harris County Flood Control District</i>	Getting the Most From Your ALERT2 Upgrade <i>David Leader · HydroLynx Systems</i>	
5 PM - 6 PM	EXHIBITOR KICKOFF - <i>Archibald Ballroom</i>			
6 PM - 6:30 PM	BOARD RIVERBOAT - <i>4th Street Wharf</i>			
6:30 PM - 8:30 PM	RIVERBOAT CRUISE - <i>Belle of Louisville, Sponsored by FM Global</i> (Includes Dinner & Entertainment)			
8:30 PM - 10 PM	NETWORKING AND HOSPITALITY SUITE - <i>See Registration Desk for Location Information</i>			



## Wednesday, June 19, 2019

7 AM - 4:30 PM	REGISTRATION - Rivue Tower 3rd Floor Registration Desk		
8 AM - 8:30 AM	CONTINENTAL BREAKFAST - Archibald Ballroom, Sponsored by Vieux & Associates, Inc.		
8 AM - 7 PM	EXHIBITS OPEN - Archibald Ballroom		
	<b>PLENARY SESSION : 8:30 AM - 8:40 AM</b> Cochran Ballroom Moderator - David Curtis · Program Chair	<b>PLENARY SESSION : 8:40 AM - 9:20 AM</b> Cochran Ballroom Moderator - David Curtis · Program Chair	<b>PLENARY SESSION : 9:20 AM - 10 AM</b> Cochran Ballroom Moderator - David Curtis · Program Chair
8:30 AM - 10 AM	NHWC Welcome Steve Fitzgerald · NHWC President	Hurricane Maria - Impacts on Puerto Rico José Luis Valenzuela · State Hazard Mitigation Officer Central Office of Recovery, Reconstruction & Resiliency	New Focus for the USGS Groundwater and Streamflow Information Program Chad Wagner · USGS Headquarters
10 AM - 10:30 AM	BREAK - Archibald Ballroom, Sponsored by SensiFlood		
	<b>GENERAL SESSION 1</b> Cochran Ballroom Moderator - Steve Fitzgerald · Harris County Flood Control District (Retired)	<b>GENERAL SESSION 2</b> McCreary Room Moderator - David Curtis · WEST Consultants	
10:30 AM - 11 AM	Understanding US Flood Fatalities - A Review of Recent Flood Fatalities and the Decisions that Led to Them Todd J. Shea · NOAA/NWS		The Iowa Flood Center Real-Time Streamflow Forecasting System for Iowa Felipe Quintero · Iowa Flood Center
11 AM - 11:30 AM	Drowning in Data: Lessons Learned & the Path Forward in Flood Warnings Francisco Sanchez, Jr. · Harris County Office of Homeland Security & Emergency Management		The “Internet of Things” and Seven Things You Should Know About How it Will Impact the Flood Warning, Dam Safety, and Levee Safety Industries James Logan · OneRain, Inc.
11:30 AM - 12 PM	Hydrologic Effects of Hurricane Maria in Puerto Rico, September 2017 Richard Kane · USGS		How Does FEMA Evaluate a Flood Warning System? Al W. Goodman, Jr. · AWG Consulting, LLC
12 PM - 1:30 PM	LUNCHEON - Archibald Ballroom, Sponsored by Vieux & Associates, Inc. Everything I Know About Floodplain Management I Learned in the Army French Wetmore · French & Associates, Ltd.		
	<b>JUSTIFY : EXTREME EVENTS</b> Cochran Ballroom Moderator - Chris Crompton · Orange Co. Public Works	<b>SEATTLE SLEW : DATA ANALYSIS &amp; HAZARD COMMUNICATIONS</b> McCreary Room Moderator - Kevin Stewart · Denver Urban Drainage & Flood Control District	<b>COUNT FLEET : DATA COLLECTION &amp; ADVANCED TECHNOLOGIES</b> Beckham Room Moderator - Bruce Rindahl · Ventura Co. Watershed Protection
1:30 PM - 2 PM	Hurricane Harvey Panel : A Life Altering Moment for Harris County, Texas Jeff Lindner · Harris County Flood Control District	An Expanding Range of Flood Warning Technologies to Meet Varying User Requirements Katie van Werkhoven · RTI International	Science for the Emergency Response Community: Possible or Crazy? Marie Peppler · USGS
2 PM - 2:30 PM		Interagency Collaboration & Impact-Based Decision Support Services Delivered During the 2017 & 2019 COMED Operation Power Play Jonathon Thomburg · NWS NCRFC	Why GOES and Iridium Are Now a Viable Option to ALERT2 Al Caldwell · USGS
2:30 PM - 3 PM		Decision Support Visualization Tools for the Colorado Drought Mitigation and Response Plan Ryan Spies · Lynker Technologies	Bexar County HALT System Dave Wegman · Bexar County & Tom Ogden · High Sierra Electronics
3 PM - 3:30 PM	BREAK - Archibald Ballroom, Sponsored by Campbell Scientific		
	<b>JUSTIFY : EXTREME EVENTS</b> Cochran Ballroom Moderator - Ben Pratt · Susquehanna River Basin Commission	<b>SEATTLE SLEW : DATA ANALYSIS &amp; HAZARD COMMUNICATIONS</b> McCreary Room Moderator - Dave Smith · WEST Consultants	<b>COUNT FLEET : DATA COLLECTION &amp; ADVANCED TECHNOLOGIES</b> Beckham Room Moderator - Andrew Rooke · AMR Consults
3:30 PM - 4 PM	Leaders Library : Hydrology and Flood Warning Lee Mauney · Bureau of Indian Affairs & Brian Iserman · JE Fuller Hydrology & Geomorphology, Inc.	Using Watershed-Scale Assessments to Develop a Multi-Benefit Water Resource Project Portfolio in North Orange County, California Chris Crompton · County of Orange	Using Technology to Enhance How We Measure, Collect and Transmit Information Ron Marotto · Ventura County Watershed Protection Agency
4 PM - 4:30 PM	An Overview of the January 9, 2018 Extreme Flash Flood & Debris Flow Event in Montecito, California Jayme L. Laber · NOAA NWS	Balancing Dam Safety Risk Communication Aaron Smith · USACE	Improving Data Telemetry for USACE Water Management Division in Portland, Oregon William Jonassen · OLAV & Co. & Jeffrey Budnick · WEST Consultants
4:30 PM - 5 PM	Historic Flooding in North & South Carolina in September 2018, October 2016 & October 2015 : Is This Unprecedented? Toby D. Feaster · USGS	Leveraging Relationships & Agency Products : InFRM-Interagency Flood Risk Management Jerry L. Cotter · USACE	ALERT2 System Performance Evaluation David Haynes · Distinctive AFWS Designs, Inc. & Ranjan Mutiah · City of Fort Worth
5 PM - 7 PM	EXHIBITOR RECEPTION - Archibald Ballroom, Sponsored by RTI International		
	DINNER ON YOUR OWN		
8 PM - 11 PM	NETWORKING AND HOSPITALITY SUITE - See Registration Desk for Location Information		

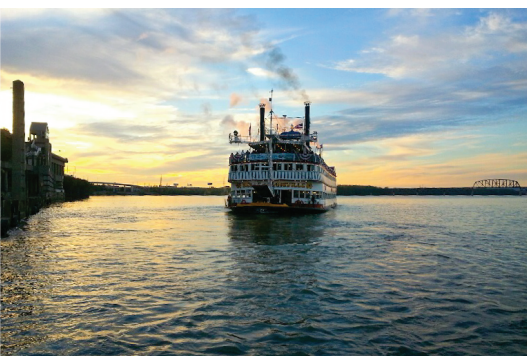
## Thursday, June 20, 2019

7 AM - 12 PM	REGISTRATION - <i>Rivue Tower 3rd Floor Registration Desk</i>			
8 AM - 8:30 AM	CONTINENTAL BREAKFAST - <i>Archibald Ballroom</i>			
8 AM - 1:30 PM	EXHIBITS OPEN - <i>Archibald Ballroom</i>			
	<b>JUSTIFY : EXTREME EVENTS</b> <i>Cochran Ballroom</i> Moderator - <i>David Haynes</i> <i>Distinctive AFWS Designs, Inc.</i>	<b>SEATTLE SLEW : DATA ANALYSIS &amp; HAZARD COMMUNICATIONS</b> <i>McCreary Room</i> Moderator - <i>Ryan Spies</i> <i>Lynker Technologies</i>	<b>COUNT FLEET : DATA COLLECTION &amp; ADVANCED TECHNOLOGIES</b> <i>Beckham Room</i> Moderator - <i>Chris Ferrari</i> <i>GEI Consultants</i>	<b>SECRETARIAT : FORECAST MODELING</b> <i>Daisy Room</i> Moderator - <i>Scott Fant</i> · <i>Alabama Power</i>
8:30 AM - 9 AM	The Ellicott City Floods of 2016 & 2018: The Critical Role of the Howard County, MD Flood Warning System, Lessons Learned & Plans for the Future <i>Jason Elliott</i> · NOAA/NWS	Simplifying & Clarifying National Weather Service Flood Products via the NWS Hazard Simplification Project <i>Mary Mullusky</i> & <i>Daniel Roman</i> NWS Headquarters	Using 2D Modeling to Develop Detailed Hydrologic Studies <i>Carey Johnson</i> · <i>Kentucky Division of Water</i> & <i>Davis Murphy</i> · AECOM	Atmospheric Rivers Lead to Excessive Runoff Above California's Oroville Dam During January & February 2017 <i>Allen B. White</i> · NOAA Earth System Research Laboratory
9 AM - 9:30 AM	U.S. Geological Survey South Atlantic Water Science Center Response to Hurricane Florence <i>John Shelton</i> · USGS	Real-Time Dynamic Flood Inundation Mapping <i>Kristina Murphy</i> · <i>DuPage County</i>	Flood Alert & Remote Sensing IoT Network <i>Navid Yazdi</i> & <i>Siva Aduri</i> · <i>Ervigia Systems</i>	Bridging the Gap: Linking HEC-HMS Forecasting with Continuous Soil Moisture Accounting <i>David C. Curtis</i> · <i>WEST Consultants</i>
9:30 AM - 10 AM	Mapping the Flood Forecast - USACE Case Studies from 2017 & 2018 Hurricanes <i>Jason Sheeley</i> · USACE	Enhancing Hydro-Met Warning Systems with the Internet of Things <i>Zoë Fyfe</i> · <i>FTS INC.</i>	South East Queensland ALERT2 Trial Increased Reliability & Accuracy of Flood Warning Data in Australia <i>Mike Zucosky</i> · <i>OneRain, Inc.</i>	Using HEC-RAS 2D to Estimate Unit Hydrograph Parameters for the Mary's Creek Watershed <i>C. Landon Erickson</i> · USACE
10 AM - 10:30 AM	BREAK - <i>Archibald Ballroom</i>			
	<b>JUSTIFY : EXTREME EVENTS</b> <i>Cochran Ballroom</i> Moderator - <i>James Stuart</i> · <i>Sunwater</i>	<b>SEATTLE SLEW : DATA ANALYSIS &amp; HAZARD COMMUNICATIONS</b> <i>McCreary Room</i> Moderator - <i>Jean Vieux</i> · <i>Vieux &amp; Assoc.</i>	<b>COUNT FLEET : DATA COLLECTION &amp; ADVANCED TECHNOLOGIES</b> <i>Beckham Room</i> Moderator - <i>Robert Laag</i> · <i>Riverside Co. Flood Control &amp; Water Conservation Dist.</i>	<b>SECRETARIAT : FORECAST MODELING</b> <i>Daisy Room</i> Moderator - <i>Fritz Law</i> · <i>OneRain</i>
10:30 AM - 11 AM	Flood Coordination Between Multiple Districts When Extreme Events Occur on Both the Red River & Mississippi Rivers During 2019 <i>Fred Jensen</i> · USACE	National Weather Service Flash Flood Emergencies <i>Jon W. Zeidler</i> & <i>Aaron Treadway</i> · NWS	Deploying ALERT2 Configurable FEC <i>David Van Wie</i> · <i>Blue Water Design</i>	ALCAL-Nashville SAFE's Quick & Easy Flood Prediction Model <i>Bradley Heilwagen</i> · <i>Wood Environment &amp; Infrastructure Solutions, Inc.</i>
11 AM - 11:30 AM	Hydrologic Effects of Hurricane Michael in Florida, October 2018 <i>Ron Knapp</i> · USGS	The Pinal Fire Burn Scar - Post Wildfire Assessment to NWS Warning Operations to Recovery <i>Michael Schaffner</i> · NWS	System Resiliency, Eliminating Single Points of Failure <i>Scott Bores</i> · <i>OneRain, Inc.</i>	Estimating Hydrologic Loss Rates for Runoff Forecast Models <i>Travis W. Stanford</i> · USACE
11:30 AM - 12 PM	A Comparison of River Flooding on the Ohio River at McAlpine Upper During Two Months in 2018 with Record Setting Rainfall <i>Andrea Schoettmer</i> · NWS	South Carolina's Extreme Precipitation & Flood Alert System <i>Victoria Bahls</i> & <i>Katie Ward</i> · <i>MetStat, Inc.</i>	Remote Image Monitoring with ALERT2 <i>Peter Acton</i> · <i>JE Fuller Hydrology &amp; Geomorphology, Inc.</i>	River Inundation Forecasting with HEC-RTS for the San Luis Rey River Watershed, San Diego County, CA <i>Dave Smith</i> · <i>WEST Consultants, Inc.</i> & <i>Rand Allen</i> · <i>Co. of San Diego Flood Control</i>
12 PM - 1:30 PM	LUNCHEON - <i>Archibald Ballroom, Sponsored by WEST Consultants</i> Moderator - <i>David Curtis</i> · <i>WEST Consultants</i> Rapid Response for Extreme Events - National Water Model Experience <i>Ed Clark</i> · <i>NWS National Water Center</i>			
	<b>JUSTIFY : EXTREME EVENTS</b> <i>Cochran Ballroom</i> Moderator - <i>Markus Ritsch</i> <i>Water &amp; Earth Technologies, Inc.</i>	<b>SEATTLE SLEW : DATA ANALYSIS &amp; HAZARD COMMUNICATIONS</b> <i>McCreary Room</i> Moderator - <i>David Herlong</i> <i>NC Division of Emergency Management</i>	<b>COUNT FLEET : DATA COLLECTION &amp; ADVANCED TECHNOLOGIES</b> <i>Beckham Room</i> Moderator - <i>Jeff Budnick</i> <i>WEST Consultants</i>	<b>CITATION : FLOOD WARNING &amp; FLOODPLAIN MANAGEMENT</b> <i>Daisy Room</i> Moderator - <i>Katie van Werkhoven</i> <i>RTI International</i>
1:30 PM - 2 PM	Hydrologic Effects of Hurricane Irma in Florida, September 2017 <i>Mark Dickman</i> · USGS	Everything is Relative : Understanding the Meaning of Stage <i>June E. Wolfe III</i> · <i>Texas A&amp;M AgriLife Research</i>	Making More Accurate Rainfall Measurements Using Modern Technology & Proper Maintenance Procedures <i>Mark Moore</i> · <i>Harris County Flood Control District</i>	NAI How-To Guide for Flood Warning & Response <i>French Wetmore</i> · <i>French &amp; Associates, Ltd.</i>
2 PM - 2:30 PM	Devastating Flash Flooding During a Record Breaking Wet Period in the Texas Hill Country <i>Katie Dedeaux</i> · NWS	Flood From Fire : Oregon Post-Wildfire Flood Playbook - Defining Federal & State Resources <i>Spencer Higginson</i> · NWS	ALERT2 Network Design <i>James Logan</i> · <i>OneRain, Inc.</i> & <i>Carrie Lery</i> · <i>High Sierra Electronics</i>	An Evaluation of the NOAA Atlas 14 with the 2013 Colorado Front Range Rainstorm & Other Extreme Rainstorms in Eastern Colorado <i>Robert D. Jarrett</i> · <i>Flood and Paleoflood Science, LLC.</i>
2:30 PM - 3 PM	Predicting and Identifying Potential Debris Flow Rainfall Intensities <i>Bruce Rindahl</i> · <i>Ventura Co. Watershed Protection District</i>	Towards Real-Time Inundation Forecasts with the NOAA/NWS National Water Model <i>Brian Cosgrove</i> · <i>NOAA/NWS Office of Water Prediction</i>	Rainfall Instrumentation Options <i>David Haynes</i> · <i>Distinctive AFWS Designs, Inc.</i>	Tropical Storm Michael in SW Virginia & the Future of IFLOWS <i>Peter Corrigan</i> · <i>NOAA/NWS Blacksburg</i>

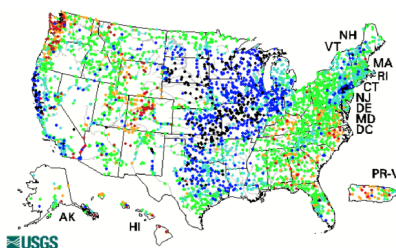


## Thursday, June 20, 2019, continued

3 PM - 3:30 PM	BREAK - Foyer, Sponsored by RESPEC Consulting & Services			
	<b>JUSTIFY : EXTREME EVENTS</b> Cochran Ballroom Moderator - Katie Ward · MetStat, Inc.	<b>SEATTLE SLEW : DATA ANALYSIS &amp; HAZARD COMMUNICATIONS</b> McCreary Room Moderator - Jayme Laber NOAA/NWS Los Angeles	<b>COUNT FLEET : DATA COLLECTION &amp; ADVANCED TECHNOLOGIES</b> Beckham Room Moderator - Ron Moratto Ventura Co. Watershed Protection	<b>AMERICAN PHAROAH : UNDERSTANDING HUMAN CONNECTIONS</b> Daisy Room Moderator - Fred Jensen · USACE
3:30 PM - 4 PM	Flood Forecasting in a Physically-Based Model Framework - Can We Prevent the Majority of Flood Losses? <i>Yasir Kaheil &amp; Paolo Larentis · FM Global</i>	Constitution for Personal Flood Safety <i>Jon W. Zeidler · NWS</i>	Lessons Learned in ALERT2 Low Water Crossing Warning System Implementation <i>David C. Leader · HydroLynx Systems, Inc. &amp; Erik Carlson · Water &amp; Earth Technologies, Inc.</i>	TVA River Management & Flood Information Dissemination Through Social Media <i>James H. Everett · TVA River Forecast Center</i>
4 PM - 4:30 PM	Spatial Analysis of Extreme Rain Events Along the Colorado Front Range <i>Markus Ritsch &amp; Steve Malers · Water &amp; Earth Technologies, Inc. &amp; Kevin Stewart · Urban Drainage &amp; Flood Control District</i>	California DWR Sponsored ALERT2 Network Designs for Southern (2014) & Northern California (2015) & the Accumulated Benefits to State, Counties & ALERT2 Community <i>James Logan · OneRain, Inc. &amp; David Curtis · WEST Consultants</i>	The Big Sioux River Flood Information System : A One-Stop Web Platform to Access Real-Time Stream <i>Peter Rausch · RESPEC &amp; Tim Cowman · South Dakota Department of Environment &amp; Natural Resources</i>	Latest from Twitter <i>Jim Moffitt · Twitter</i>
4:30 PM - 5 PM	Utilizing CWMS to Forecast Potential Flooding Due to Hurricane Florence with a Dispersed Remote Team <i>Michael Borchers · USACE</i>	Transitioning a Complex Flood Warning Network from ALERT to ALERT2 <i>Boo Robinson · USGS</i>	Queensland Monsoon Rain & Floods 2019: A Record Breaker <i>James Stuart · Sunwater</i>	Panel Discussion : Social Media <i>James H. Everett · TVA River Forecast Center &amp; Jim Moffitt · Twitter</i>
5 PM - 5:30 PM	NHWC ANNUAL MEMBERSHIP MEETING - McCreary Room			
6 PM - 9 PM	NHWC AWARDS BANQUET - Waterford Room, Sponsored by OneRain & ALERT Users Group (Includes Dinner, Door Prizes & Entertainment)			
9 PM - 11 PM	NETWORKING AND HOSPITALITY SUITE - See Registration Desk for Location Information			



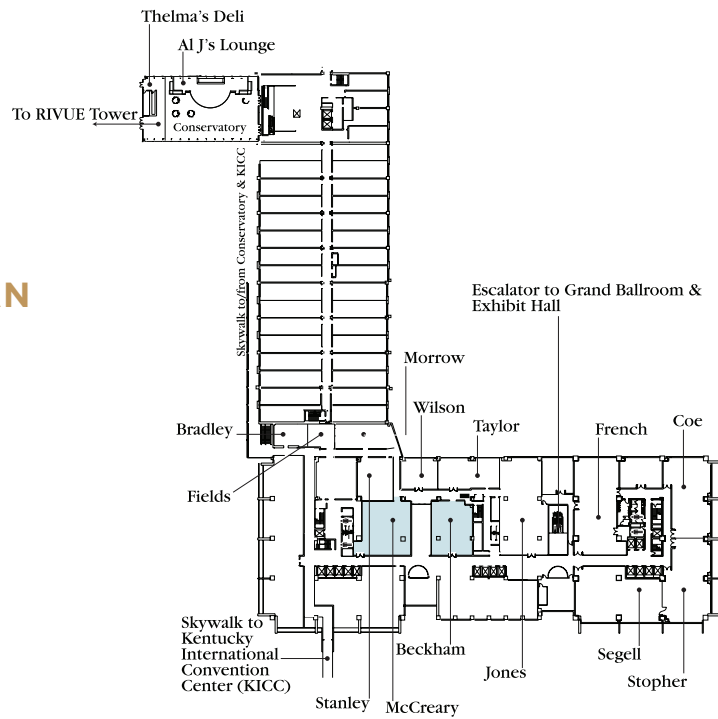
The USGS collects hydrologic, water-quality, biological and geospatial data and conducts targeted scientific research and investigations to help Federal, State, and local agencies, decision makers, and the public we serve before, during, and after extreme hydrologic events. Our work provides situational awareness, drives predictive models and impact assessments, informs infrastructure design and operation, supports floodplain mapping, and permits estimation of constituent concentrations and loads. Learn more at <https://www.usgs.gov>.



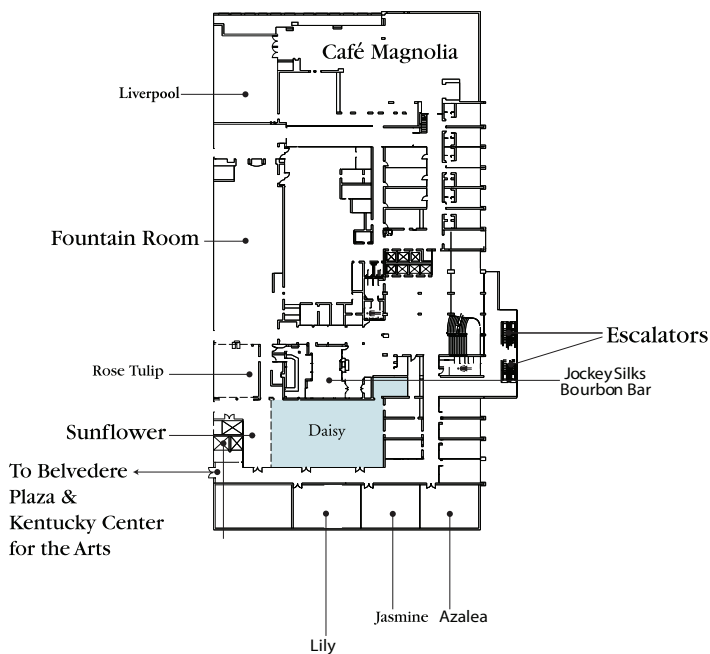
USGS WaterWatch and the USGS StreamGage Network

## CONFERENCE FLOORPLAN THE GALT HOUSE

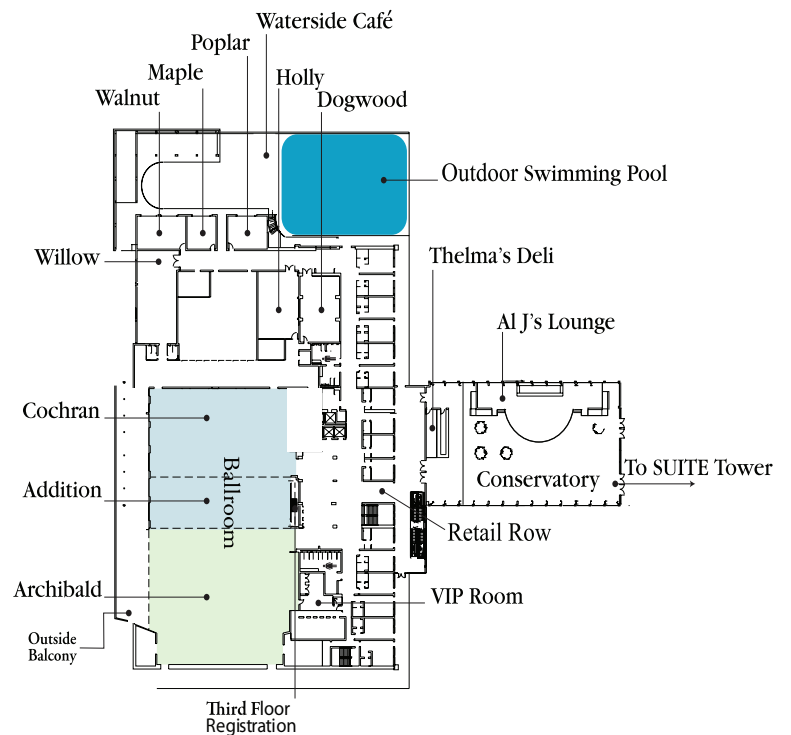
- Training Workshops
- Plenary Sessions
- Concurrent Sessions
- Exhibits
- Luncheons
- Breaks



## SUITE TOWER, 3RD FLOOR



## RIVUE TOWER, 2ND FLOOR



## RIVUE TOWER, 3RD FLOOR

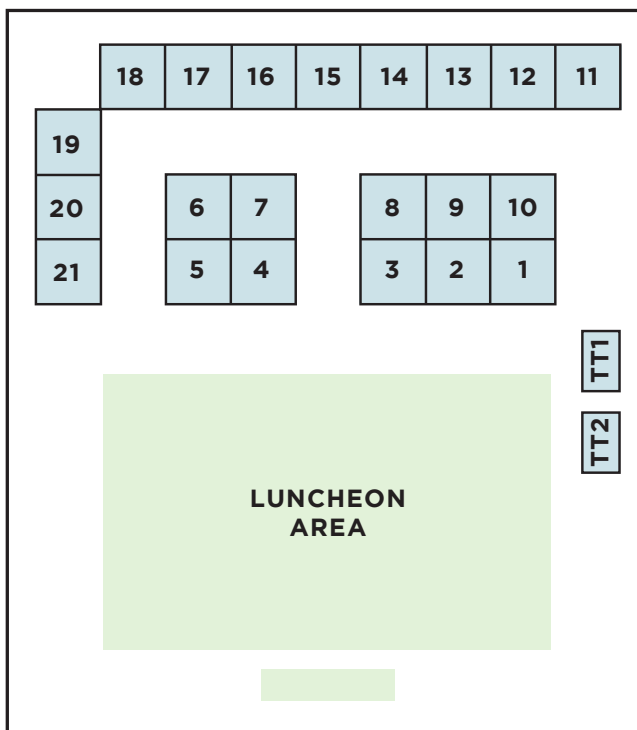


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## Training Workshop - McCreary Room

Tuesday, June 18, 8:30 to 10:00 am

"Enhancements to HSE Hardware"

Presented by Carrie Lery and Tom Ogden



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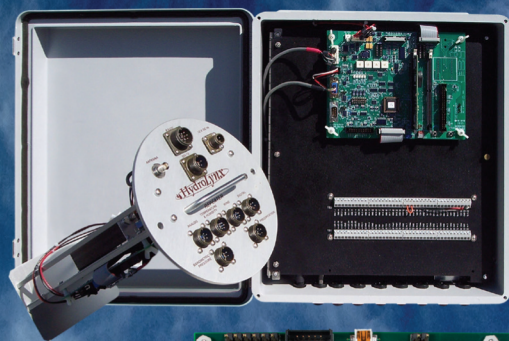
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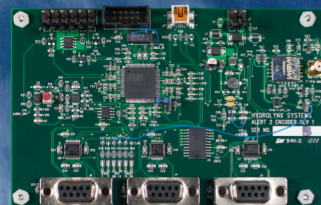
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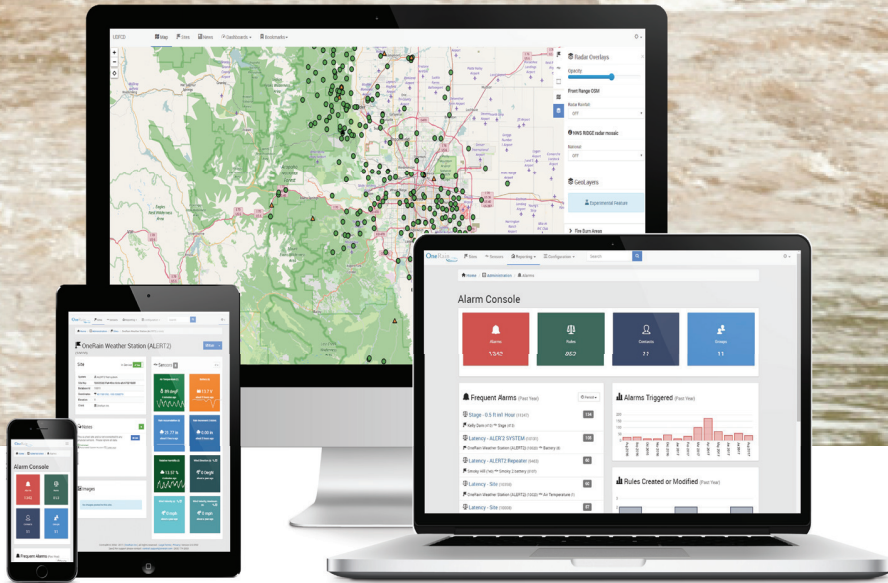
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# The ALERT Users Group Training Conference & Exposition

**MAY 5-8, 2020**  
**VENTURA BEACH MARRIOTT**  
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*The ALERT Users Group is proud to announce the return to the refurbished Ventura Beach Marriott for their*

## **28<sup>TH</sup> FLOOD WARNING SYSTEMS TRAINING CONFERENCE & EXPOSITION**

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The 2020 conference theme is 'Expanding the Possibilities of Early Warning Systems.' This nationally known and respected training conference will be held in Ventura, CA, from May 5th through May 8th, 2020 which is only a few blocks from the beach. This event has been held since 1982, provides valuable opportunities for training and discussion concerning effective operation, maintenance and management of real time flood warning systems. The ALERT Users Group is aware of the challenges plaguing local governments, agencies, corporations and private individuals. The ALERT Users Group is planning to address a number of these topics and concerns along with providing critical training and workshop opportunities. The conference will also provide an opportunity to examine the latest in flood warning equipment, products, software and services, and to meet with trained sales staff who can answer technical and purchasing questions. We look forward to seeing you at the **2020 ALERT Users Group's Flood Warning Systems Training Conference & Exposition!**

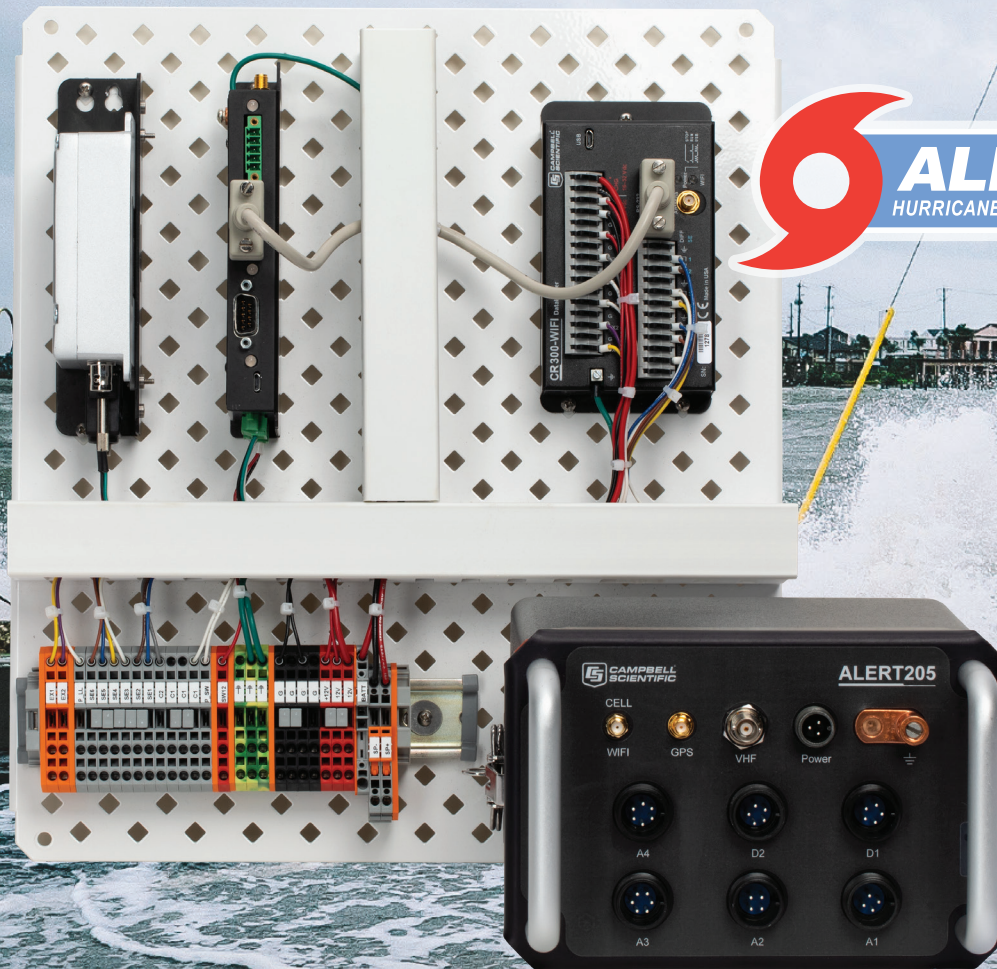




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