Kentucky Association of Mitigation Managers

2016 ANNUAL CONFERENCE

The CHANGING CLIMATE
of Mitigation

August 22-25, 2016
Kentucky Dam Village State Resort Park
The Kentucky Association of Mitigation Managers (KAMM) was formed in order to promote hazard mitigation and management in Kentucky. Our members represent local floodplain coordinators, planning and zoning officials, engineers, code enforcement officers, surveyors, GIS specialists, hydrologists, and public safety and emergency managers.

www.kymitigation.org

Special Thanks
to our 2016 KAMM Conference Team!

Jimmy Stahl, Conference Chair

Geni Jo Brawner
Ben Conley
Mike Greene
Nick Grinstead
Carey Johnson
Pamela Moore

Steve Noe
John Ward
Keld Madsen
Lori Rafferty
Esther White
Photographer: Lois Cunningham
Welcome to the 2016 Annual KAMM Conference!

The “new normal” in natural hazards management and mitigation is quickly becoming a reality, and it will continue to influence how we manage our risks, perform our jobs, and set future policy. It is the *Changing Climate of Mitigation* which is our theme for this year’s conference. This year we welcome over 35 speakers to share their expertise and experience in line with the conference theme.

The conference and Welcome Fest kicks off Monday night, August 22nd, with an icebreaker event provided by Esther White and Nick Grinstead. For the third year, the Agency Meet and Greet session on Tuesday morning will showcase leadership from ten state and federal agencies regarding mitigation themes. We welcome two new agencies this year, the KY Division of Abandoned Mine Lands and EPA Region 4. The KAMM Mitigation and Floodplain Manager of the Year Awards will be awarded to KAMM members who have exemplified outstanding floodplain management and mitigation efforts.

Plenary sessions, workshops, and concurrent sessions will provide useful information ranging from basic knowledge to more advanced topics from the local, state, and federal perspectives. Sessions include presentations on technical topics, specifically the FEMA Substantial Damage Estimator (SDE), USACE nonstructural flood risk management, and Letters of Map Change (LOMCs). We will be promoting the Community Rating System (CRS) again this year and encourage you to join the CRS User’s Group. We are happy to announce that Susan Wilson from FEMA RIV will give us an update during the Wednesday morning plenary session on the changes occurring to the National Flood Insurance Program (NFIP). Joe Sullivan, a KAMM favorite, will conduct Thursday’s plenary on the future of the National Weather Service (NWS).

Based upon feedback that you provided during conference registration, we have created an opportunity for conference attendees to become involved in various KAMM committees. Our KAMM committee “speed dating” session will be a fun way to introduce your Top 3 Professional Interests selections. There is something for everyone!

At the annual KAMM cookout on Tuesday night, featuring Steve Noe at the grill, we will vie to see who brings home the KAMM Annual Cornhole tournament trophy while Lindsey Williams provides musical entertainment. More information about Lindsey can be found at https://www.reverbnation.com/lindseywilliams. Wednesday evening’s social will provide picturesque views of Kentucky Lake from houseboats provided by KAMM. Be sure to dress appropriately; it can get chilly on the lake even in August!

The KAMM conference is a great networking opportunity that promotes social and professional interactions for partnership building. We have several agencies and sponsors who will host booths to promote their programs and services. We give a special thanks to all of our sponsors. Without their continued support of KAMM and our conference, we wouldn’t be able to make the conference nearly as enjoyable or affordable. Please visit the sponsors to meet the folks that have helped to make our conference possible.
KAMM Conference Fees. The conference registration fee includes continental breakfast, lunch, dinner, breaks, conference materials, and social events. Every morning a continental breakfast will be served in the Conference Center starting at 7:30 am. Lunches, except Thursday, will be at the Harbor Lights Restaurant in the Lodge. Thursday’s lunch will be at the Activity Center as part of the KAMM conference close-out.

All sessions, unless otherwise noted, will be held at the KY Dam Village Convention Center.

KAMM Conference Registration Packet Includes:
- Lanyard with Name Badge (includes lunch tickets and one dinner ticket)
- Conference program and schedule
- KAMM Goodie Bag
- KAMM Conference Evaluation Form
- One item from the KAMM Store

KYEM Conference Sign in Sheets. In partnership with KYEM, we will be distributing sign in sheets each day for you to initial your attendance. KYEM representatives will be providing KAMM with support in this effort.

Registration and Help Desk. The KAMM Registration/Help Desk will be staffed with volunteers, and we are here to help you. The registration/help desk will be open at 7:30 am every day. Please visit a KAMM volunteer with any questions.

KAMM Store. Please be sure to visit the KAMM Store! The KAMM Store accepts cash, check, or credit card payments.

Agency Exhibits and Sponsors. KAMM thanks its Sponsors! We have designated time for you to visit with our Sponsors and Agencies and hear about their various services and products. We will celebrate our sponsors Monday evening and Tuesday and Wednesday afternoons. During a Plenary on Wednesday afternoon, we will hear from our Platinum sponsors. Please visit the exhibits to meet the folks that have helped make our conference possible.

Regional Representative Positions Open! Join us for Coffee with KAMM on Thursday morning and attend your Regional Meeting. Two KAMM Regions may be selecting a Regional Representative to serve on the KAMM Board this year. Regional Representative positions are opening for KAMM Regions I and III (currently held by John Ward and Geni Jo Brawner). The role of the Regional Representative is defined in this packet. To locate your region, see the KAMM Regions map in the packet.

Continuing Education. CFMs will receive a maximum of 12 CECs for attending the KAMM conference. Local officials through the Department of Local Government (DLG) will receive 11.25 hours. Self-reporting Certificates of Completion for the August 22nd pre-conference activities and the annual conference will be presented at the KAMM Luncheon on Thursday, August 25th in the Conference Center. Please pick up your certificate at the luncheon.
AECOM is proud to sponsor the 2016 KAMM Conference

To discuss our broad range of services, please contact:
Jimmy Stahl, PE, CFM
502.569.2301
Jimmy.Stahl@aecom.com
www.aecom.com
Holistic approach to risk assessment, mitigation and management

Connect with our experts at the 2016 KAMM Annual Conference
stephen.noe@amecfw.com
alicia.williams@amecfw.com
keld.madsen@amecfw.com

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Environment & Infrastructure
Mining
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Our local strength, knowledge, and relationships, coupled with world-class expertise, enable us to meet our clients’ needs in creative, personalized ways.

Stantec is proud to sponsor the 2016 KAMM Conference.

Contact:
Mike Greene
(859) 422-3079
mike.greene@stantec.com
stantec.com
3399 Tates Creek Road, Suite 130
Lexington, KY 40502-7401
Ph: (859) 333-8015
Jhallany@visinengr.com
www.visionengr.com

Water Resources
- Hydrological Analysis
- Hydraulic Analysis
- Floodplain Permitting
- Stormwater and Sewer System Modeling
- Green Infrastructure
- FEMA Study

Surveying
- Stream Survey
- Stream Mapping
- Boundary & ALTA Survey
- Topographic & Utility Survey
- Easement Acquisition
- Platting

Civil Design
- Landuse Planning
- Site Development
- Planning & Zoning
- Infrastructure and Long Range Planning
- Mixed Used Development
- Commercial Development
KAMM welcomes ten federal and state agencies with critical roles in natural hazards management and mitigation to the conference this year to participate in the annual Agency Meet and Greet session. Each agency representative will provide a 10 minute briefing of their mission and authority pertaining to the conference theme, “The Changing Climate of Mitigation”. Following the agency presentations, a KAMM moderator will facilitate an interactive Question and Answer session for conference attendees to engage the agency representatives.

### Agency Presenters:

<table>
<thead>
<tr>
<th>Agency</th>
<th>Presenter</th>
<th>Position</th>
<th>Agency</th>
<th>Presenter</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="#">Division of Water</a></td>
<td>Peter Goodmann</td>
<td>Kentucky Division of Water</td>
<td><a href="#">Kentucky Emergency Management</a></td>
<td>Michael Dossett</td>
<td>Kentucky Emergency Management</td>
</tr>
<tr>
<td><a href="#">Design Branch Manager, Kentucky Division of Abandoned Mine Lands</a></td>
<td>Joe Manley</td>
<td>Design Branch Manager, Kentucky Division of Abandoned Mine Lands</td>
<td><a href="#">National Weather Service</a></td>
<td>Joe Sullivan</td>
<td>National Weather Service</td>
</tr>
</tbody>
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10
Tuesday, August 23

Bios listed in order of presentations.

**Peter Goodmann**

Peter Goodmann has worked for Department for Environmental Protection since 1993, including 13 years as a manager in the Division of Water (K Dow) prior to being appointed Assistant Director in 2008. In February 2014, Mr. Goodmann was appointed the Director of the Division of Water. He is responsible for overseeing Kentucky’s water regulatory programs, including the Clean Water Act and Safe Drinking Water Act programs and the water resources programs, including the Dam Safety program, Stream Construction/Floodplain permitting, NFIP, and the Risk Map program, drought management, as well as the Agriculture Water Quality Act.

Peter earned his B.S. in Geology from the University of Iowa (1984), his M.A. in Geology from Temple University (1986), and conducted other post-graduate work at the University of Kentucky, where he was a Chevron Fellow.

Email: Peter.goodmann@ky.gov

**Michael E. Dossett**

Michael Dossett was appointed as the Director of the Division of Emergency Management (KYEM) in June 2014 and continues to lead the agency under Governor Matt Bevin. He has served in Kentucky state government since 2004. Director Dossett began his career with the Department of Military Affairs in August 2009 as a KYEM Regional Response Manager and was promoted in March 2011 to Logistics Chief and held that position within the division until his retirement in July 2013.

During his tenure at KYEM, Mr. Dossett also served as the Public – Private Sector Program Coordinator and developed a nationally recognized best-practice model for the integration of private sector partnerships and alliances in disaster response. During this period, he led the process of integrating the Private Sector Virtual Business EOC concept as an integral part of response operations. Mr. Dossett was selected as the first recipient of the National InfraGard Award in 2015 for Public-Private Sector Innovation. Director Dossett serves as the Chair of the Kentucky Emergency Response Commission. In addition, he serves as the Secretary-Treasurer of the Board of Directors for the Central U.S. Earthquake Consortium.

Director Dossett holds FEMA certifications for All-Hazards Incident Commander, Logistics Chief, Master Exercise Practitioner and Type III Multi Agency IMT Commander. He is a certified police instructor for the Kentucky Law Enforcement Council and holds instructor certifications for the Incident Command System and Exercise and Evaluation programs. He attended the University of Louisville and the Southern Police Institute.

Email: Michael.e.dossett.nfg@mail.mil

**Matthew M. Crawford**

Matt Crawford received a B.A. from Hanover College and an M.S. from Eastern Kentucky University. He is an engineering geologist with the Kentucky Geological Survey (KGS) and has been employed for 14 years. Matt’s research focuses on landslide characterization and conditions that lead to slope failure. Matt also maintains a statewide landslide inventory database and associated landslide interactive map service. He has participated in several KYEM/FEMA landslide hazard mitigation grant program applications by providing reports to the applicants regarding the geologic conditions and landslide observations related to failure.

Email: mcrawford@uky.edu
Joseph A. Manley

Joe Manley has a PE and is a PLS. Joseph graduated from Bath County High School in Owingsville, KY in 1969 and attended the University of Kentucky on state highway scholarship from 1969-1973 and received a BSCE. Joe worked for Kentucky Transportation Cabinet in District 7 Design Branch from 1974-1978; the Division of Water Resources from 1978-1980 in floodplain permitting; and the Division of Water from 1980-1982 as Permits Branch Manager. He worked for the Kentucky Division of Abandoned Mine Lands (AML) as Consultant Section Supervisor 1982-1995 and Construction Branch Manager 1995-2005. Joe retired from 2006-2007 and worked briefly for the Division of Water Drinking Water permitting section for six months in 2007. Since 2007, Joe has worked for Division of (AML) as Design Branch manager.

Email: joseph.manley@ky.gov

Susan W. Wilson

Susan Wilson is Chief of the Floodplain Management and Insurance Branch, Mitigation Division of the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA), Region IV, in Atlanta, Georgia. Susan is a Certified Floodplain Manager (CFM) and frequently teaches floodplain management and flood insurance related courses for FEMA at the Emergency Management Institute (EMI) and other training venues. Susan supervises a staff that provides assistance and guidance to communities in the mitigation of floods and other natural hazards, the development of local floodplain management programs, and issues relating to flood insurance, and manages the records for the Mitigation Division. Susan began working at FEMA Region IV in 1983, and has worked extensively with all eight states in FEMA Region IV. In addition to floodplain management, Susan served as the Regional insurance specialist from 1985-2007. From 1985-1995, Susan served as the project officer for the Section 1362 Acquisition Program which was responsible for acquiring more than 150 severely flood damaged buildings and converting the properties to permanently deeded open space land use.

Susan holds a Bachelor of Arts degree, cum laude, from Wittenberg University, and a Masters degree from the University of Georgia.

Email: susan.wilson@fema.dhs.gov

William ‘Drew’ Parker

Drew Parker has worked as a Geographer at the U.S. Environmental Protection Agency (EPA) Region IV in the Data Information and Analysis Section since March of 2016. Prior to joining the EPA, Drew worked for 8+ years with AECOM in Atlanta, GA on a variety of environmental, mitigation, FEMA Risk MAP, and FEMA Map Modernization projects. He is a CFM and an accredited GIS Professional (GISP) who currently supports the EPA Region IV Water Protection Division with geospatial analysis, data management, and programmatic research. Since coming to the agency, one of his main research areas has focused on how to incorporate EPA programs into ongoing mitigation activities.

Email: parker.william@epa.gov

Brandon Brummett

Brandon Brummett is currently the Outreach Coordinator for the Louisville District, US Army Corps of Engineers (USACE). He works to educate state and local governments and Congressional staff about the Corps of Engineers programs and processes and works with them to see how the Corps of Engineers can assist in solving their water resource related issues.

Brandon is a registered Civil Engineer in the Commonwealth of Kentucky since 2002, certified Project Management Professional since 2007, and has been with the Corps since 1995. He is a 1998 Graduate of the University of Louisville with a Bachelor’s of Science and Masters’ of Engineering in Civil Engineering.

Email: brandon.r.brummett@usace.army.mil
Joe Sullivan

Joe Sullivan has been the Warning Coordination Meteorologist at the National Weather Service (NWS) in Louisville since 2007. A native of Iowa, Joe has a B.S. in Meteorology from Iowa State University and worked as a TV meteorologist in Springfield, MO prior to joining the NWS in 1987. Prior to Louisville, his NWS career included stops in Kansas, Nebraska, Iowa, Wyoming, Colorado and Missouri. His career focus has been interaction with emergency management to protect lives and property.

Email: joe.sullivan@noaa.gov

Pete Cinotto

Pete Cinotto is a Deputy Director for the USGS Indiana-Kentucky Water Science Center (INKY WSC); he has over 20 years of experience and received a Superior Service Award from USGS in 2013. Pete oversees all operations conducted by the three Kentucky offices of the INKY WSC and has several ancillary duties that include serving on various scientific committees and serving as a project chief for local- and National-scale projects.

Pete has a diverse background in earth sciences and, prior to relocating to Kentucky in 2007, he worked in the private sector, the USGS National Water Quality Laboratory, USGS Georgia WSC, and the USGS Pennsylvania WSC. Pete has a bachelor’s degree in geology from the University of Northern Colorado.

Email: pcinotto@usgs.gov

Christina Groves

Christina Groves, CFM is a Specialist with the Community Rating System (CRS) covering five states within three FEMA Regions (Kentucky and Tennessee (R-IV); Indiana (R-V); Virginia and West Virginia (R-III); within the five states she manages 140+ communities. Christina has been with the CRS Program for seven years.

Prior to joining the ISO/CRS team, Christina was the Director of Development Services for a nine jurisdiction planning commission. During her tenure with the planning office, some of her responsibilities included: management of construction on the Special Flood Hazard Area (SFHA), plat review, drafting zoning ordinances and enforcement, comprehensive planning and the review and adoption of new Flood Insurance Rate Maps (FIRMs).

Email: cgroves@iso.com
## Conference Schedule

**Tuesday August 23**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 am - 5:00 pm</td>
<td>Registration / Help Desk / KAMM Store Conference Center Lobby</td>
</tr>
<tr>
<td>7:30 am</td>
<td>Continental breakfast provided – Conference Center</td>
</tr>
<tr>
<td>8:00 – 8:30 am</td>
<td>Welcome - KAMM State of the Union</td>
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<tr>
<td></td>
<td>Carey Johnson, KAMM Chair</td>
</tr>
<tr>
<td>8:30 – 8:40 am</td>
<td>Break</td>
</tr>
<tr>
<td>8:40 – 10:40 am</td>
<td>Plenary – Agency Meet and Greet</td>
</tr>
<tr>
<td>10:40 - 10:55 am</td>
<td>KAMM Annual Awards</td>
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<tr>
<td></td>
<td>2016 Mitigation Manager and Floodplain Manager of the Year Awards</td>
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<tr>
<td></td>
<td>Presented by 2015 Mitigation Manager and Floodplain Manager of the Year Awards winners: Cindy Minter and Dave Herndon</td>
</tr>
<tr>
<td>10:55 - 11:10 am</td>
<td>Meet the KAMM Board</td>
</tr>
<tr>
<td>11:10 - 11:20 am</td>
<td>Break</td>
</tr>
<tr>
<td>11:20 - 11:50 am</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>Room A</td>
<td>1/2 hour Concurrent Room A</td>
</tr>
<tr>
<td>101:</td>
<td>Research, Data Delivery, and Hazard Assessment at the Kentucky Geological Survey</td>
</tr>
<tr>
<td></td>
<td>Matt Crawford, KGS</td>
</tr>
<tr>
<td>1/2 hour Concurrent Room B</td>
<td>Intermediate: USACE Programs and Authority</td>
</tr>
<tr>
<td>Intermediate:</td>
<td>Brandon Brummet, US Army Corps of Engineers, Louisville District</td>
</tr>
<tr>
<td>1/2 hour Concurrent Room C</td>
<td>Intermediate: Overview of the New MS4 Permit</td>
</tr>
<tr>
<td>Intermediate:</td>
<td>Abigail Rains, KDOW</td>
</tr>
<tr>
<td>11:50 - 1:00 pm</td>
<td>KAMM Lunch – Harbor Lights Restaurant in the Lodge</td>
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<tr>
<td>1:00 – 1:50 pm</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>Room A</td>
<td>50-Minute Concurrent Room A</td>
</tr>
<tr>
<td>Intermediate:</td>
<td>Radcliff City Goes Green to Protect Karst</td>
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<tr>
<td></td>
<td>Toby Spalding, City of Radcliff</td>
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<tr>
<td></td>
<td>Chad McCormick, Land Design and Development, Inc.</td>
</tr>
<tr>
<td>50-Minute Concurrent Room B</td>
<td>101: Hazard Mitigation in the Commonwealth of Kentucky</td>
</tr>
<tr>
<td>Intermediate:</td>
<td>Geni Jo Brawner, KYEM</td>
</tr>
<tr>
<td>4 hour Workshop Room C</td>
<td>1:00 – 5:00 pm</td>
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<tr>
<td>Intermediate:</td>
<td>FEMA Substantial Damage Estimator (SDE)</td>
</tr>
<tr>
<td></td>
<td>Mark Vieira, FEMA RIV</td>
</tr>
<tr>
<td>1:50 - 2:00 pm</td>
<td>Break</td>
</tr>
<tr>
<td>2:00 - 2:50 pm</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>Room A</td>
<td>50-Minute Concurrent Room A</td>
</tr>
<tr>
<td>Intermediate:</td>
<td>The Willow Run Watershed Success Story - Integrated Planning and Green Infrastructure Solutions</td>
</tr>
<tr>
<td></td>
<td>Mike Woolum and Chris Rust, Strand Associates</td>
</tr>
<tr>
<td>50-Minute Concurrent Room B</td>
<td>Intermediate: Success Stories using CHAMPS</td>
</tr>
<tr>
<td>Intermediate:</td>
<td>Doug Eades, KYEM</td>
</tr>
<tr>
<td></td>
<td>Josh Human, Stantec</td>
</tr>
<tr>
<td>2:50 - 3:00 pm</td>
<td>Break</td>
</tr>
</tbody>
</table>
## Concurrent Sessions: 3 Tracks

<table>
<thead>
<tr>
<th>Time</th>
<th>CRS Overview</th>
<th>LOMC Overview</th>
<th>Track 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:00 – 5:00 pm</td>
<td>2-Hour Workshop</td>
<td>2-Hour Workshop</td>
<td>4-hr workshop,</td>
</tr>
<tr>
<td></td>
<td>Room B</td>
<td>Lodge Meeting Room</td>
<td>Room C</td>
</tr>
<tr>
<td></td>
<td>CRS 101: Obtaining a 5% to 10%</td>
<td>LOMC Intermediate:</td>
<td>1:00-5:00</td>
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<tr>
<td></td>
<td>Discount on Flood Insurance for</td>
<td>Understanding FEMA’s Letter of Map</td>
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<tr>
<td></td>
<td>Your Community</td>
<td>Change (LOMC) Process</td>
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<tr>
<td></td>
<td>Christina Groves, ISO/CRS</td>
<td>Kristen Martinenza, FEMA RIV</td>
<td></td>
</tr>
</tbody>
</table>

### Conference Schedule

**Tuesday August 23**

- **5:00 – 6:30 pm**
  - Agency and Vendor Exhibits Networking Social

- **6:30 – 10:00 pm**
  - Cookout at the Pavilion, Steve Noe at the Grill
  - Annual Cornhole Tournament at the Pavilion, Keld Madsen, Coordinator
  - Special music guest - Lindsey Williams
### Conference Schedule

**Wednesday August 24**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 am - 5:00 pm</td>
<td>Registration / Help Desk / KAMM Store - Conference Center Lobby</td>
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<tr>
<td>7:30 am</td>
<td>Continental breakfast provided</td>
</tr>
<tr>
<td>8:00 - 8:10 am</td>
<td>Welcome – Jimmy Stahl, KAMM Conference Chair</td>
</tr>
</tbody>
</table>
| 8:10 - 8:55 am | Plenary – Changes to the National Flood Insurance Program – What to Expect  
Susan Wilson, FEMA Region IV |
| 8:55 - 9:10 am | Flood Insurance Q and A                                             |
| 9:10 - 9:20 am | Break                                                                |
| 9:20 - 10:15 am | Committee Dating: Committee Meetings                                |
| 10:15 - 10:25 am | Break                                                               |

**Concurrent Sessions: 3 Tracks**

#### Track 1

- **1/2 hour Concurrent**
  - **Room A**
  - **Intermediate**: Coal Run Village, Kentucky: Flood Mitigation in Action  
  - Megan Dunn and Kristen Dunaway, AECOM

#### Track 2

- **1/2 hour Concurrent**
  - **Room B**
  - **101**: Flood Inundation Mapping along the North Fork of the Kentucky River in Hazard, Kentucky  
  - Jeremiah Lant, USGS

#### Track 3

- **1/2 hour Concurrent**
  - **Room C**
  - **101**: Mitigating Water Risk: A Dual Focused Approach - Managing the Quality and Quantity of Water Resources within Communities  
  - Drew Parker, EPA Region IV

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>10:25 - 10:55 am</td>
<td>Break</td>
</tr>
</tbody>
</table>

#### Track 1

- **50-Minute Concurrent**
  - **Room A**
  - **101**: Mitigation’s Role in Disaster Declarations  
  - Stephanie Robey, KYEM

#### Track 2

- **50-Minute Concurrent**
  - **Room B**
  - **101**: What is Your Library Worth? Empowering Your Community with CRS Credit  
  - Cindy Minter, Campbell County

#### Track 3

- **4 hour Workshop**
  - **Room C**
  - **101**: Unmanned Aerial Systems (UAS)  
  - Neal Crawford and Ben Shinabery, QK4

**Noon - 1:00 pm**  
KAMM Lunch – Harbor Lights Restaurant in the Lodge

#### Track 1

- **1:00 – 2:00 pm**
  - **1/2 Hour Concurrent**
  - **Room A**
  - **101**: Match Making  
  - Nick Grinstead and Brian Gathy, University of Kentucky Hazard Mitigation Grants Program Office/KYEM

#### Track 2

- **1:00 – 2:00 pm**
  - **1/2 Hour Concurrent**
  - **Room B**
  - **Intermediate**: Working Smart with Point Cloud Big Data  
  - Demetrio Zourarakis, Kentucky Division of Geographic Information

#### Track 3

- **1:00 – 4:00 pm**
  - **3-Hour Workshop**
  - **Room C**
  - **Intermediate**: Interagency Nonstructural Flood Risk Management  
  - Steve O’Leary and JoAnn Combs, USACE – Huntington

  - Brandon Brummett, USACE – Louisville

  - Carey Johnson, KDOW

  - Geni Jo Brawner, KYEM

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*Participants' names have been anonymized for privacy reasons.*
### Conference Schedule

**Wednesday August 24**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>2:00 - 2:10 am</td>
<td>Break</td>
</tr>
<tr>
<td>2:10 - 2:40 pm</td>
<td><strong>Track 1</strong></td>
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<tr>
<td></td>
<td>1/2 Hour Concurrent</td>
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<tr>
<td></td>
<td>Room A</td>
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<tr>
<td></td>
<td><strong>101: Leveraging Funding to Create Opportunities</strong></td>
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<tr>
<td></td>
<td>Sarah Taylor, GeoMorphic</td>
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<tr>
<td></td>
<td><strong>Track 2</strong></td>
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<tr>
<td></td>
<td>1/2 Hour Concurrent</td>
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<tr>
<td></td>
<td>Room B</td>
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<tr>
<td></td>
<td><strong>Intermediate: How to Move up in CRS from a Local’s Perspective</strong></td>
</tr>
<tr>
<td></td>
<td>Lori Rafferty, Louisville MSD</td>
</tr>
<tr>
<td>2:40 - 2:45 pm</td>
<td>Break</td>
</tr>
<tr>
<td>2:45 - 3:35 pm</td>
<td><strong>Track 1</strong></td>
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<tr>
<td></td>
<td>50 -Minute Concurrent</td>
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<tr>
<td></td>
<td>Room A</td>
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<tr>
<td></td>
<td><strong>Intermediate: Building Public and Private Mitigation Partnerships;</strong></td>
</tr>
<tr>
<td></td>
<td>The Beginning of the Louisville Metro Silver Jackets</td>
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<td></td>
<td>John “J P&quot; Carsone, Louisville MSD</td>
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<td><strong>Track 2</strong></td>
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<td>50 -Minute Concurrent</td>
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<td>Room B</td>
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<td></td>
<td><strong>Intermediate: CRS Credit for Emergency Manager Role and Emergency</strong></td>
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<td>Operations Plan: CRS Activity 610</td>
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<td>Christina Groves, ISO</td>
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<tr>
<td>3:35 - 3:45 pm</td>
<td>Break</td>
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<tr>
<td>3:45 - 4:15 pm</td>
<td><strong>Plenary – CRS User’s Group</strong></td>
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<td>Floodplain Management Checklist</td>
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<td>Christina Groves, ISO/CRS</td>
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<td>4:15 - 4:30 pm</td>
<td><strong>Plenary – Sponsor Appreciation!</strong></td>
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<td>Agency and Vendor Exhibits Networking Social</td>
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<tr>
<td>At your leisure</td>
<td><strong>KAMM Dinner</strong> - Harbor Lights Restaurant in the Lodge</td>
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<tr>
<td>6:30 - 10:00 pm</td>
<td><strong>KAMM Houseboat Ride 6:30 – 8:30 pm</strong></td>
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<td>Board the Houseboat @ 6:00 pm.</td>
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<td>Houseboat leaves promptly at 6:30 and returns at 8:30 pm</td>
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<tr>
<td></td>
<td><strong>8:30 – 10:00 pm - Networking at Pavilion</strong></td>
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# Conference Schedule

**Thursday August 25**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:30 am - noon</td>
<td>Registration / Help Desk / KAMM Store - Conference Center Lobby</td>
</tr>
<tr>
<td>7:30 am</td>
<td>Continental breakfast provided</td>
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<tr>
<td>8:00 – 8:05 am</td>
<td>Welcome</td>
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<tr>
<td>8:05 – 8:50 am</td>
<td>Plenary – Decision Support Services - the Future of the NWS</td>
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<td>Joe Sullivan, NWS</td>
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<tr>
<td>8:50 – 9:30 am</td>
<td>Coffee w/ KAMM</td>
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<td></td>
<td>4 KAMM Regional Meetings</td>
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<tr>
<td>9:30 – 9:45 am</td>
<td>Break</td>
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## Concurrent Sessions: 3 Tracks

**Track 1**
- **1/2 hour Concurrent**
  - **Room A**
    - **101:** Using a Multibeam Echosounder for Surveying Underwater Bathymetry
      - Justin Boldt, USGS
    - **101:** Oriole Mines AML Reclamation Project
      - Jason Robinson and Samantha Johnson, AML

**Track 2**
- **1/2 hour Concurrent**
  - **Room B**
    - **Intermediate:** Technical Mapping Advisory Council (TMAC) Recommendations
      - Carey Johnson, KDOV
    - **Intermediate:** ArcGIS Online to Share Information with Stakeholders
      - Anne Marie Cason, KDOV

**Track 3**
- **1/2 hour Concurrent**
  - **Room C**
    - **Intermediate:** Metcalfe County Radio Distribution Initiative
      - Emory Kidd, Metcalfe County Emergency Management;
    - **Intermediate:** Union County and FEMA's New Levee Analysis and Mapping Procedures
      - Sean Sheffer, Union County

**9:45 - 10:45 am**
- **Break**

**Track 1**
- **50 -Minute Concurrent**
  - **Room A**
    - **101:** Flood Mitigation Assistance Grant Programs
      - Esther White, UK Hazard Mitigation Grants Program

**Track 2**
- **50 -Minute Concurrent**
  - **Room B**
    - **Intermediate:** NFIP Best Practices
      - Alex VanPelt, KDOV

**Track 3**
- **50 -Minute Concurrent**
  - **Room C**
    - **Intermediate:** Confronting Flooding from Multiple Angles, Hopkinsville's Approach to Flood
      - Dave Herndon, City of Hopkinsville

**10:45 - 11:00 am**
- **Break**

**11:00 - 11:50 am**
- **KAMM Luncheon in the Conference Center**
  - Conference Closeout and Prizes
  - Receive Conference Certificates
  - KAMM Store Closes!

**12:00 - 1:30 pm**
- **Be sure to return your KAMM lanyard and nametag for a prize drawing!**
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Kentucky Association of Mitigation Managers

Services Include:
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Contact:
Louie Greenwell, GISP, CFM
LGreenwell@primeeng.com
www.primeeng.com

Connecting. Creating. Conserving. COMMUNITY.

Smart Solutions for a Complex World
Our unique capabilities in disaster preparedness, disaster response, and infrastructure design establish Tetra Tech as an unmatched provider of emergency management and community resilience services.

tetratech.com
In order to promote education about floodplain, stormwater, emergency management and mitigation; to enhance cooperation between the various related private, local, state, and federal agencies; and to encourage and ensure effective, new, and innovative approaches to managing the Commonwealth’s floodplains and risk management systems, this body hereby adopts this document as the amended Constitution of Kentucky Association of Mitigation Managers, Inc.

KAMM will advance its educational purpose by the following:

1. To provide a forum for discussion among floodplain coordinators, emergency and mitigation managers, engineers, code enforcement officials, and surveyors;

2. To provide knowledge and promote discussion on issues pertinent to floodplain management, mitigation, and disaster recovery;

3. To promote public awareness of floodplain and stormwater management and mitigation;

4. To promote the professional status of floodplain, stormwater, and emergency management and mitigation and to secure all benefits resulting therefrom;

5. To enhance cooperation and to exchange information among various related private and non-profit organizations; individuals; and local, state, and federal agencies;

6. To inform individuals concerned with floodplain, stormwater, and emergency management and mitigation through educational and professional seminars and to provide a method for dissemination of information, both general and technical.
Welcome: KAMM Chair

Presenter: Carey Johnson

Plenary – Agency Meet and Greet – see inset

½ HOUR CONCURRENT SESSIONS

Concurrent Session Title: Research, Data Delivery, and Hazard Assessment at the Kentucky Geological Survey

Presenter: Matt Crawford, KGS

Abstract of Presentation: The Kentucky Geological Survey’s (KGS) mission is to investigate mineral, energy and water resources, and geologic hazards for the Commonwealth of Kentucky and the nation. The mission is focused on research in earth resources and processes, public service, and the dissemination of our data, knowledge, and experience to stakeholders in industry, government, educational institutions, and the general public. The KGS' role in geologic hazards and mitigation primarily includes hazard identification, delineation, and assessment. Research areas include earthquakes, landslides, karst hazards, radon, and hazards associated with energy development. KGS' primary focus is the evaluation of geologic processes and the potential these hazards have to cause damage or harm to the built environment. The KGS has worked closely with several state agencies and local communities to help them understand these hazards and to take steps toward mitigation.

Concurrent Session Title: USACE Programs and Authority, Brandon Brummett, US Army Corps of Engineers Louisville District

Presenter: Brandon Brummett, USACE

Abstract of Presentation: The US Army Corps of Engineers (USACE) has numerous programs and authorities available to assist State and local governments. This presentation and discussion gives an overview of these programs as well as a brief overview of the Corps of Engineers process in developing a civil works project. This presentation will help representatives from state and local governments better understand the “who, what, where, when, why, and how” of the US Army Corps of Engineers.

Concurrent Session Title: Overview of the New MS4 Permit

Presenter: Abigail Rains, KDOW

Abstract of Presentation: This presentation will discuss the new KY General Permit for Phase II MS4s and new requirements including Phase II U.S. Environmental Protection Agency (EPA) regulations and potential changes to the MS4 program. We will also be discussing the new mapping and training requirements included in the permit.

4-HOUR WORKSHOP

Workshop Title: FEMA Substantial Damage Estimator (SDE)

Presenter: Mark Vieira, FEMA RIV

Abstract of Presentation: The Substantial Damage Estimator (SDE) tool was developed by the Federal Emergency Management Agency (FEMA) to assist State & local officials in determining substantial damage for residential and non-residential structures in accordance with a local floodplain management ordinance meeting the requirements of the National Flood Insurance Program (NFIP). The tool can be used to assess flood, wind, wildfire, seismic, and other forms of damage. It helps communities provide timely substantial damage determinations so that reconstruction can begin following a disaster. The workshop will cover the NFIP requirements for substantial damage determination, present the tool, cover input data required by the tool, talk about damage inspections, present a SDE video, and show SDE examples.
50-MINUTE CONCURRENT SESSIONS

Concurrent Session Title: Radcliff City Goes Green to Protect Karst

Presenters: Toby Spalding, City of Radcliff; Chad McCormick, Land Design and Development, Inc.

Abstract of Presentation: This presentation will describe an EPA funded green infrastructure demonstration project installed at Radcliff's City Hall Complex. The project site drains to sensitive karst features that eventually lead to an important environmental, economic and recreation resource, Saunders Springs. In addition, the site had drainage problems, including flooding of the City archive records rooms. The completed project shows that green infrastructure can be constructed cost effectively and maintained economically while simultaneously satisfying environmental objectives and surpassing aesthetic goals. The primary goals of the project were to improve the water quality, reduce peak discharges, educate and train through demonstration, and to track installation and maintenance cost for use by local engineers, developers and contractors. Funding for this project was provided in part by a grant from the USEPA through the Kentucky Division of Water (KDOw), Nonpoint Source Section to the City of Radcliff as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint Source Implementation Grant # C9994861-09. Mention of trade names or commercial products, if any, does not constitute endorsement.

Concurrent Session Title: Hazard Mitigation in the Commonwealth of Kentucky

Presenter: Geni Jo Brawner, KYEM

Abstract of Presentation: During this session, we will look at the different hazard mitigation assistance programs administered by Kentucky Emergency Management (KYEM), review successful mitigation projects in Kentucky, and discuss how mitigation can help with future response efforts.

50-MINUTE CONCURRENT SESSIONS

Concurrent Session Title: The Willow Run Watershed Success Story - Integrated Planning and Green Infrastructure Solutions

Presenters: Mike Woolum and Chris Rust, Strand Associates

Abstract of Presentation: Located in Northern Kentucky, just across the Ohio River from downtown Cincinnati, the Willow Run watershed is tributary to SD1’s largest combined sewer overflow (CSO) location, and includes the region’s busiest transportation corridor of Interstate 71/75. A detailed integrated planning watershed analysis was performed along this corridor to identify opportunities to incorporate sustainable solutions, reduce CSO volumes and capitalize on partnership and integrated opportunities. This presentation will provide an overview of the watershed planning, as well as the implementation of three identified projects (Terraced Reforestation, 12th Street Green Street, KYTC Detention Basin Retrofit), and the post construction monitoring and modeling results that validated the projected CSO Stormwater benefits for this large scale green infrastructure retrofit project. Notably, the Terraced Reforestation Project was awarded an American Council of Engineering Companies National Engineering Excellence Award.

Concurrent Session Title: Success Stories using CHAMPS

Presenters: Doug Eades, KYEM; Josh Human, Stantec

Abstract of Presentation: This presentation will take you on a journey on how individuals are successfully using the modules within the Community Hazard Assessment & Mitigation Planning System (CHAMPS) to operationalize resilience. During this presentation you will learn how KYEM is managing disaster declarations within the system, how individuals are using the system to acquire and track funding opportunities, how CHAMPS is being used to catalogue infrastructure and points of contact, how individuals are using the system to track significant events and hazard occurrences, and other ways individuals are using the system to their benefit. This presentation will be geared toward displaying real world application of the system and describing the advantages of using the system. Our end goal of the presentation is to provide individuals with a desire to continue to use and build out their community’s capabilities within the system and achieve greater resilience.
Presentation Abstracts

Tuesday, August 23

2-HOUR WORKSHOPS

Workshop Title: Obtaining a 5% to 10% Discount on Flood Insurance for Your Community

Presenter: Christina Groves, ISO/CRS

Abstract of Presentation: The CRS program provides flood insurance discounts for communities that participate in the National Flood Insurance Program (NFIP) and exceed minimum requirements. The CRS program accounts for above-and-beyond efforts in community mapping and information, public outreach, warning systems, flood protection efforts, higher regulatory standards, open space preservation, and more. The more a community does to promote these mitigation efforts, the more citizens can save on their flood insurance premiums. This workshop will review the CRS application process to attain a Class Rating and how to take your community’s CRS rating to the next level.

Workshop Title: Understanding FEMA’s Letter of Map Change (LOMC) Process

Presenter: Kristen Martinenza, FEMA RIV

Abstract of Presentation: This training session will discuss an overview of the different types of Letter Actions that the FEMA uses to modify its Flood Insurance Rate Maps (FIRMS). The session will give an overview of all types of Letters of Map Correction, but will focus on the Letter of Map Amendment and Letter of Map Revision-based on Fill processes. We will discuss the types of data needed, the format of data, and the timeline of reviews and responses. This session will also focus on new digital tools that FEMA has available to assist in better understanding FIRM data and revising it if necessary. The tools focused on will be the National Flood Hazard Layer, FEMA’s geoplatform and the new eLOMA process. Attendees will gain knowledge in understanding the map change options that are available and where they can go to get the most up to date information on their flood risk.
**Plenary – Changes to the National Flood Insurance Program – What to Expect**

**Presenter:** Susan Wilson, FEMA Region IV

**Abstract of Presentation:** This session will discuss the changes to the NFIP under Biggert-Waters 2012 and the Homeowner Flood insurance Affordability Act of 2014. An overview of the important parts of the legislation will be reviewed, and the actions taken to implement the two acts will be reviewed.

**½ HOUR CONCURRENTS**

**Concurrent Session Title:** Coal Run Village, Kentucky: Flood Mitigation in Action

**Presenters:** Megan Dunn and Kristen Dunaway, AECOM

**Abstract of Presentation:** Flooding that occurs in the Cowpen Creek watershed within Coal Run Village presents a number of challenging issues. For many years, heavy rainfalls in Coal Run Village have caused severe flooding, repetitive damage, and both environmental and public safety risks for businesses and home owners. More than 50 severe storms have hit the area since 1903. The event in August of 2014 left thousands without power and approximately 12,000 people without running water. This project involves raising the roadway and replacing the existing culvert on Lonesome Cedar Lane above Cowpen Creek. The roadway is frequently overtopped, restricting access for Jones Oil Company, which requires public access to deliver natural gas and oil. When overtopped, the route is obstructed and the facility is inaccessible causing economic losses. Due to the steepness of the watershed, flood velocities, and limited space in the valley, a combination of mitigation activities will be implemented, including replacing the existing corrugated metal culvert with a buried bridge system on Lonesome Cedar Lane roadway over Cowpen Creek, stream restoration, and bank stabilization. The City of Coal Run Village was awarded $247,000 in 2016 to perform mitigation activities on Cowpen Creek. The total mitigation benefits for this project are estimated to be $774,663.

**Concurrent Session Title:** Flood Inundation Mapping along the North Fork of the Kentucky River in Hazard, Kentucky

**Presenter:** Jeramiah Lant, USGS

**Abstract of Presentation:** The City of Hazard, KY is located on an S-bend of the North Fork of the Kentucky River. Hazard is prone to flooding because of its location on the North Fork and has experienced numerous flood events. The purpose of this project is to develop a series of estimated flood inundation maps for the North Fork near Hazard that will help the city more efficiently manage emergency flood operations and flood mitigation efforts.

In addition, the project will create a library of flood inundation maps for the North Fork that shows detailed predicted areas, extents, and depth of flooding. The flood inundation maps will be created from the recent Light Detection and Ranging (LiDAR) data and referenced to the water-surface elevation and gage heights at the USGS streamgage at station no. 03277500. The flood inundation maps will be made available on the USGS Flood Inundation Mapping Science Web site at http://water.usgs.gov/osw/flood_inundation/.

**Concurrent Session Title:** Mitigating Water Risk: A Dual Focused Approach - Managing the Quality and Quantity of Water Resources within Communities

**Presenter:** Drew Parker, EPA Region IV

**Abstract of Presentation:** What does mitigation mean to you? What makes for a truly resilient community? The mission of the U.S. Environmental Protection Agency (EPA) is to protect human health and the environment, and trying to mitigate threats to either has become an increasing directive for the agency. What role does EPA play in mitigation within your community? This presentation will look to answer these questions and others with an overview of the various EPA programs that could potentially be leveraged into upcoming mitigation activities, enhancing the way we manage water resources within our communities.
**Concurrent Session Title: Mitigation’s Role in Disaster Declarations**

**Presenter:** Stephanie Robey, KYEM

**Abstract of Presentation:** The Disaster Declaration request process and the FEMA Public Assistance Program are changing with an added emphasis on mitigation. More than ever counties and communities must incorporate mitigation efforts and needs in preparedness, response, and recovery activities.

**Concurrent Session Title: What is Your Library Worth? Empowering Your Community with CRS Credit**

**Presenter:** Cindy Minter, Campbell County; 2015 Mitigation Manager of the Year

**Abstract of Presentation:** Campbell County, one of Kentucky’s three northernmost counties, is surrounded by a great asset and development challenge: its water. It is bordered on all but one of its boundaries by the Ohio and Licking Rivers, which are naturally accompanied by the presence of many streams and tributaries, as well as a number of river cities and demand for riverfront development. In 2013, the County’s joint planning unit launched an effort to take control of the rising cost of flood insurance. In doing so, there was widespread recognition that citizens needed to be empowered with the facts as compared to rumors, hearsay, and outdated information concerning flood hazards and insurance. As an outcome, in 2015, four cities and the County began sharing their knowledge and successfully entered FEMA’s Community Rating System (CRS) as Class 8 and 9 communities.

This session explores the County and cities’ entry into the CRS program and the documentation of existing strategies, including the building up of their flood hazard educational library. The collaborative efforts of this community has resulted in a tangible impact on flood insurance rates and an overall motivation to proactively manage flood hazards.

**Concurrent Session Title: Unmanned Aerial Systems (UAS)**

**Presenter:** Neal Crawford and Ben Shinabery, QK4

**Abstract of Presentation:** This presentation will discuss how emerging technologies, such as unmanned aerial systems (UAS) can be a useful tool to assist mitigation managers with a variety of floodplain and flood information collection. UAS are capable of providing accurate data in fractions of the time as traditional survey methods. The presentation will also provide background information into UAS regulations and limitations.

**Workshop Title: Interagency Nonstructural Flood Risk Management**

**Presenters:** Steve O’Leary and JoAnn Combs, USACE – Huntington; Brandon Brummett, USACE – Louisville; Carey Johnson, KDOW; Geni Jo Brawner, KYEM

**Abstract of Presentation:** General Workshop to focus on nonstructural Flood Risk Management (FRM) - presenting an overview of State and Federal Agency programs associated with Flood Risk Management. Topics include KY Silver Jackets, State/FEMA/USACE FRM programs, and nonstructural Flood Risk Management.

**½ HOUR CONCURRENTS**

**Concurrent Session Title: Match Making**

**Presenters:** Nick Grinstead and Brian Gathy, University of Kentucky Hazard Mitigation Grants Program Office/KYEM

**Abstract of Presentation:** By primarily using examples of reimbursement requests for projects and for a plan, this presentation intends to discuss the purpose of match requirements for grants, current issues and obstacles in making match, and solutions for ensuring match can be made. Of particular emphasis will be documentation and of particular focus will be the use of labor, travel, and/or time as sources for match.
Concurrent Session Title: Maximizing Grant Opportunities by Utilizing a Flood Prone Structure Inventory

**Presenters:** Sharlie Khan, Louisville MSD; James McCallon, Prime AE

**Abstract of Presentation:** Following the widespread flooding that Jefferson County experienced in April and July of 2015, local officials were left with far more mitigation projects than the dollars available could handle. Like many communities, this meant the city needed to capitalize on all potential grant opportunities, both traditional and re-scope opportunities, quickly in order to make a noticeable impact. In order to maximize their efficiency in applying for funding, officials utilized a GIS inventory of all flood prone structures to help put together grant applications that would serve those with the most need while staying within the bounds of the available funding. This inventory was specifically designed to develop a ranking and risk classification system to be used in prioritizing all flood prone structures for future mitigation potential. Presentation attendees will learn how communities can best take advantage of available funding by creating and maintaining an inventory with all of the necessary information, which allows them to simply access information needed for mitigation applications when opportunities arise.

Concurrent Session Title: Working Smart with Point Cloud Big Data

**Presenter:** Demetrio Zourarakis, Kentucky Division of Geographic Information

**Abstract of Presentation:** Tools, platforms and environments are proliferating to the point that practitioners are not clear on originating sensor, spatial accuracy and overall adequacy of large point cloud datasets for specific workflows. This presentation will focus on existing standards for point cloud data and native and compressed file formats. There will be a discussion of data provisioning sources and a variety of open source and proprietary software to manipulate the datasets and analytics offered by different platforms.

Concurrent Session Title: Community Engagement for Hydraulic Inventory Data Collection

**Presenter:** Keld Madsen, Amec Foster Wheeler

**Abstract of Presentation:** The full scope of detailed riverine modeling is an expensive undertaking and the price point is usually the single controlling factor preventing communities from increasing mileage for streams studied in detail versus approximate riverine modeling. Through public outreach, it was discovered that communities had a shared interest in collaborating on hydraulic inventory data collection for detailed riverine modeling. In collaboration with stakeholders, a Riverine Survey Application and Data Management System (DMS) was developed and made available to communities. The Riverine Survey Application is deployed on Android tablets and used by both communities and contractors to collect detailed information for culverts, bridges and cross sectional data including directional pictures. The DMS is a web application that’s used by all stakeholders to view and edit information collected in the field. All data collected is made available to the community and can be downloaded through the DMS, which also allows them to build their GIS inventory of hydraulic assets within the community. This presentation will highlight the use of collaborative technology in floodplain modeling and the benefits, especially through cost savings, this approach provides.

½ HOUR CONCURRENTS

Concurrent Session Title: Leveraging Funding to Create Opportunities

**Presenter:** Sarah Taylor, GeoMorphics

**Abstract of Presentation:** Do you have streams with poor water quality? Are your streams getting deeper or wider every year? Is your repetitive and severe repetitive loss list growing? How do you prioritize and fund water resource projects when you have no money? This presentation will walk you through leveraging funding sources to create opportunities to improve your water resources.
Concurrent Session Title: How to Move up in CRS from a Local’s Perspective

Presenter: Lori Rafferty, Louisville MSD

Abstract of Presentation: Participating in the Community Rating System (CRS) is great for your community, but can seem complicated for the local floodplain administrator and expensive for the community. Louisville has participated in CRS since 1990 when the program first began and moved up to a Class 3 community in 2015. This presentation will focus on some of the easier things that we’ve learned along the way that can be done to improve your CRS rating without costing your community a lot of money or time. The presentation will overview the potential credits for the CRS activities, the minimum requirements, and give an idea of the amount of effort required from a community’s perspective.

Concurrent Session Title: Building Public and Private Mitigation Partnerships; The Beginning of the Louisville Metro Silver Jackets

Presenter: John "J P" Carsone, Louisville MSD

Abstract of Presentation: This is a success story showing how a small amount of funding can be leveraged to have much greater and longer mitigation impacts on a community. To address concerns identified during a Levee System Evaluation (LSE) of the Louisville Metro Flood Protection System as well as general failures that occurred in New Orleans during Hurricane Katrina, a $75,000 grant from the Silver Jackets was secured to allow the USACE to model two breaches in the Louisville system as an enhancement to MSD’s Flood Protection’s Emergency Preparedness Plan. Through this small grant the study was performed and once the results were known, a table top exercise based on the inundation from one of the breaches was held. This exercise involved approximately 30 federal, state, local and private agencies. The interaction from the exercise has led to the founding of the first local Silver Jackets chapter in the nation. This chapter consists of local, public, and private entities that have come together to form partnerships to mitigate flooding and other issues in Louisville Metro.

Concurrent Session Title: CRS Credit for Emergency Manager Role and Emergency Operations Plan: CRS Activity 610

Presenter: Christina Groves, ISO

Abstract of Presentation: Join this session to learn more about CRS Activity 610 – Flood Warning and Response. This aspect of the CRS program serves to evaluate and award credit for a community’s emergency management program including a Flood threat recognition system; Emergency warning dissemination; Flood response operations, and; and Critical facility planning.

Plenary – CRS User’s Group - Floodplain Management Checklist

Presenters: Christina Groves, ISO/CRS and Carey Johnson, KDOW
Plenary – Decision Support Services - the Future of the NWS

Presenter: Joe Sullivan, NWS

Abstract of Presentation: The ever-increasing amount of weather information available online can cause confusion during critical weather times for the NWS’ key partners - emergency management and public safety officials. To ensure correct information is in the hands of those entrusted with the protection of life and property, the NWS has made a conscious effort to increase its focus and resources on Impact-based Decision Support Services.

1/2 HOUR CONCURRENTS

Concurrent Session Title: Using a Multibeam Echosounder for Surveying Underwater Bathymetry

Presenter: Justin Boldt, USGS

Abstract of Presentation: A multibeam echosounder is a type of sonar that can be used to map the underwater bathymetry in lakes and rivers. Such information is useful for many studies such as hydraulic models, bridge scour, and reservoir sedimentation. This talk will introduce the basics of how a multibeam works and highlight a few case studies of multibeam surveys in the Ohio River, Lake Michigan, and the Morse and Geist Reservoirs.

Concurrent Session Title: Oriole Mines AML Reclamation Project

Presenters: Jason Robinson and Samantha Johnson, AML

Abstract of Presentation: The Oriole Mine and associated waste coal existed alongside several reclaimed mine areas and consisted of an 87 acre barren, eroding, acidic stain on the otherwise green, stable, and productive broader landscape located approximately 3 miles west-southwest of Madisonville. The project reclaimed 42 acres of barren acidic refuse, 38 acres of slurry and outwash from the refuse piles, 7 acres of highly acidic impoundments and 29.5 acres of borrow. The site was the Oriole Mines processing and load out facility used by other adjacent mines through the 1960s. All operations had ceased, and the tipple and railroad tracks were removed by the early 1970s leaving behind the barren refuse piles, slurry, and acidic impoundment that was susceptible to water and wind erosion and posed a fire hazard.

The project mitigated damage to receiving waters by reduction in sediment and acidity loads leaving the site by capping and vegetating all the material, establishing stable drainage channels, establishing a wetland area for final water treatment and wildlife, and applying Appalachian Region Reforestation Initiative (ARRI) forestry reclamation approach (FRA) reforestation techniques to the western Kentucky coal fields.

Concurrent Session Title: Technical Mapping Advisory Council (TMAC) Recommendations

Presenters: Carey Johnson, KDOW; Michael Taylor, AECOM

Abstract of Presentation: The reauthorization of the NFIP established the Technical Mapping Advisory Council (TMAC). The mission of TMAC is to navigate the direction of the NFIP and the Risk MAP Program. TMAC released their first annual report with over 20 specific recommendations. This presentation reviews those recommendations and looks at the potential impact on Kentucky.
Concurrent Session Title: ArcGIS Online to Share Information with Stakeholders

Presenter: Anne Marie Cason, KDOW

Abstract of Presentation: This presentation will discuss the advantages of using ArcGIS Online to allow stakeholders a more thorough review of preliminary data versus electronic files or paper documents, which are the regulatory standard. The discussion will focus upon floodplain mapping as an example of sharing preliminary data with stakeholders in the Commonwealth. Stakeholders who do not have GIS capabilities in their office, such as smaller communities where floodplain managers perform several roles, are able to review their digital data in a user-friendly format. WebMap and/or WebApp creation allows the KDOW to customize the look, widgets, and other aspects of the experience for the stakeholders and make navigating the maps even more user-friendly. Finally, when new data becomes effective, ArcGIS online maps displaying the preliminary data can be taken offline to prevent users from accessing data that has become obsolete. A walkthrough of the process from GIS shapefiles to online WebMaps will be performed. Examples of preliminary WebMap and WebApp projects that are currently being used by communities will be shown along with the KDOW RiskMAP Flood Risk Portal for viewing effective regulatory map data statewide without GIS software.

Concurrent Session Title: Metcalfe County Radio Distribution Initiative

Presenters: Emory Kidd, Metcalfe County Emergency Management; Amanda LeMaster, KYEM

Abstract of Presentation: Metcalfe County and KYEM will discuss the initiative project, which distributed NOAA weather radios to each structure in Metcalfe County. This presentation will focus on the approach, the hurdles, and the success of the pilot grant.

Concurrent Session Title: Union County and FEMA’s New Levee Analysis and Mapping Procedures

Presenter: Sean Sheffer, Union County; Davis Murphy, AECOM

Abstract of Presentation: In July 2013, FEMA released final guidance on a new procedure for analyzing the flood risk around levees. This new approach incorporates data from local and federal stakeholders to better determine the flood risk to levee communities without a fully accredited levee system. Utilizing available data, levee systems can now be broken up into reaches and analyzed based on site specific conditions. This is a dramatic change from years prior where the procedure was to determine the risk without levees' floodplain, but not consider the partial protection a levee could provide. As part of the initial rollout of LAMP, FEMA selected a number of pilot projects across the country, one of which took place in Union County, KY. This presentation will overview the LAMP approach as well as share experiences from that LAMP pilot project in Union County.
50-MINUTE CONCURRENTS

Concurrent Session Title: Flood Mitigation Assistance Grant Programs
Presenter: Esther White, UK Hazard Mitigation Grants Program
Abstract of Presentation: Given the changing climate of mitigating flood risks, building and strengthening your community's resilience capacity requires that hazard mitigation be at the forefront of your efforts to protect life and property. Post-disaster mitigation funding is not the only option for getting your projects moving. FEMA offers non-disaster mitigation funding on an annual cycle through its Pre-Disaster Mitigation (PDM) and Flood Mitigation Assistance (FMA) programs. This presentation covers the basics of each program and provides an overview of the application process to help you get your mitigation project funded.

Concurrent Session Title: NFIP Best Practices
Presenter: Alex VanPelt, KDOW
Abstract of Presentation: The National Flood Insurance Program (NFIP) sets minimum requirements for all participating communities to manage development within their floodplains. While most communities in the Commonwealth meet the minimum NFIP requirements, there are several additional actions that can be taken by officials that can enhance the safety of their community members. Topics in this presentation will include:
- Participation in the ADD Hazard Mitigation planning
- Requiring Freeboard
- Elevating utilities above the base flood elevation
- Place hazardous & damageable materials on the landward side or downstream side of structures
- Education & outreach (flood vents, elevation, compliance)
- Requiring elevation certificates on all new or substantially improved structures
- Including a cumulative count or lower thresholds for Substantial Damage/Substantial Improvement designations

Concurrent Session Title: Confronting Flooding from Multiple Angles, Hopkinsville's Approach to Flood
Presenter: Dave Herndon, City of Hopkinsville; 2015 Floodplain Manager of the Year
Abstract of Presentation: The City of Hopkinsville, under the direction of the Hopkinsville Surface and Stormwater Utility Board, has been able to leverage federal, state, and local funds to confront the City's ongoing flooding issues. The City's Stormwater Utility has received almost $8 million in grant money over the past several years, as well as spent almost $4 million in Stormwater Utility funds to complete other projects.

This presentation will attempt to explain the establishment of the Stormwater Utility, the process for obtaining and using funds, and the different approaches that the Stormwater Utility has used in its flood mitigation program to progress toward achieving their goals.
## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ADD</td>
<td>Area Development District</td>
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<tr>
<td>AICP</td>
<td>American Institute of Certified Planners</td>
</tr>
<tr>
<td>AML</td>
<td>Abandoned Mine Lands</td>
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<tr>
<td>ARRI</td>
<td>Appalachian Region Reforestation Initiative</td>
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<tr>
<td>ASFPM</td>
<td>Association of State Floodplain Managers</td>
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<tr>
<td>BCA</td>
<td>Benefit Cost Analysis</td>
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<tr>
<td>BFE</td>
<td>Base Flood Elevation</td>
</tr>
<tr>
<td>BW12</td>
<td>Biggert-Waters Flood Insurance Reform Act of 2012</td>
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<tr>
<td>CERT</td>
<td>Community Emergency Response Team</td>
</tr>
<tr>
<td>CFM</td>
<td>Certified Floodplain Manager</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
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<tr>
<td>CHAMPS</td>
<td>Community Hazard Assessment and Mitigation Planning System</td>
</tr>
<tr>
<td>CRS</td>
<td>Community Rating System</td>
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<tr>
<td>CSO</td>
<td>Combined Sewer Overflow</td>
</tr>
<tr>
<td>CTP</td>
<td>Cooperating Technical Partner</td>
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<tr>
<td>DHS</td>
<td>Department of Homeland Security</td>
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<tr>
<td>DLG</td>
<td>Department for Local Government</td>
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<tr>
<td>DMA2K</td>
<td>Disaster Mitigation Act of 2000</td>
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<tr>
<td>EHP</td>
<td>Environmental &amp; Historic Preservation</td>
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<tr>
<td>eLOMA</td>
<td>Electronic Letter of Map Amendment</td>
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<tr>
<td>EMAP</td>
<td>Emergency Management Accreditation Program</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<td>Federal Insurance Administration</td>
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<td>FIMA</td>
<td>Federal Insurance and Mitigation Administration</td>
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<tr>
<td>FIRM</td>
<td>Flood Insurance Rate Map</td>
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<tr>
<td>FIS</td>
<td>Flood Insurance Study</td>
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<td>FMA</td>
<td>Flood Mitigation Assistance Grant Program</td>
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<tr>
<td>FPM</td>
<td>Floodplain Management</td>
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<tr>
<td>GIS</td>
<td>Geographic Information Systems</td>
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<tr>
<td>GPS</td>
<td>Global Positioning System</td>
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<tr>
<td>HAZUS-MH</td>
<td>Hazards United States - Multi Hazard</td>
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<td>HFIAA</td>
<td>Homeowners Flood Insurance Affordability Act of 2014</td>
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<td>Hazard Mitigation Assistance</td>
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<td>HMGP</td>
<td>Hazard Mitigation Grant Program</td>
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<td>IA</td>
<td>Individual Assistance</td>
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<tr>
<td>ICC</td>
<td>Increased Cost of Compliance</td>
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<tr>
<td>ISO</td>
<td>Insurance Services Office</td>
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<td>KAMM</td>
<td>Kentucky Association of Mitigation Managers</td>
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<td>Kentucky Association of Mapping Professionals</td>
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<td>Kentucky Heritage Council</td>
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<td>KRC</td>
<td>Kentucky Residential Code</td>
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<td>KYTC</td>
<td>Kentucky Transportation Cabinet</td>
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<tr>
<td>LAMP</td>
<td>Levee Analysis and Mapping Procedures</td>
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<tr>
<td>LiDAR</td>
<td>Light Detection and Ranging</td>
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<td>LOMA</td>
<td>Letter of Map Amendment</td>
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<td>LOMC</td>
<td>Letter of Map Change</td>
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<td>LOMR</td>
<td>Letter of Map Revision</td>
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<tr>
<td>LOMR-F</td>
<td>Letter of Map Revision Based on Fill</td>
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<td>Levee System Evaluation</td>
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<td>Mitigation Activity Form</td>
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<td>MAT</td>
<td>Mitigation Action Tracker</td>
</tr>
<tr>
<td>MAF</td>
<td>Mitigation Activity Form</td>
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<td>NEHRP</td>
<td>National Earthquake Hazards Reduction Program</td>
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<tr>
<td>NFIP</td>
<td>National Flood Insurance Program</td>
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<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
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<td>NFHL</td>
<td>National Flood Hazard Layer</td>
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<td>NWS</td>
<td>National Weather Service</td>
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<tr>
<td>PA</td>
<td>Public Assistance</td>
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<tr>
<td>PDM</td>
<td>Pre Disaster Mitigation Grant Program</td>
</tr>
<tr>
<td>RISK MAP</td>
<td>Risk Mapping, Assessment, and Planning</td>
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<tr>
<td>SDE</td>
<td>Substantial Damage Estimator</td>
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<tr>
<td>SFHA</td>
<td>Special Flood Hazard Area</td>
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<tr>
<td>SHMO</td>
<td>State Hazard Mitigation Officer</td>
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<td>SHPO</td>
<td>State Historic Preservation Office</td>
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<tr>
<td>SODR</td>
<td>State Owned Dam Repair</td>
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<td>TMAC</td>
<td>Technical Mapping Advisory Council</td>
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<td>UAS</td>
<td>Unmanned Aerial Systems</td>
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<td>USACE</td>
<td>United States Army Corps of Engineers</td>
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<tr>
<td>USGS</td>
<td>United States Geological Survey</td>
</tr>
</tbody>
</table>
Speaker Biographies

Justin Boldt
Justin Boldt is a Hydrologist for the USGS Indiana-Kentucky Water Science Center in Louisville, KY. He graduated from the University of Illinois at Urbana-Champaign with a Masters' degree in Civil Engineering. Justin is experienced with hydroacoustic instruments, bathymetric surveying, programming, and hydraulic modeling.
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Geni Jo Brawner came to Kentucky Emergency Management in July of 2012 from the Emergency Management Accreditation Program (EMAP). While working at EMAP Ms. Brawner worked with local and state emergency management programs helping them prepare for their EMAP Assessments. She is a graduate of the University of Kentucky.
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Brandon Brummett
Brandon Brummett is currently the Outreach Coordinator for the Louisville District, US Army Corps of Engineers. He works to educate state and local governments and Congressional staff about the Corps of Engineers programs and processes and works with them to see how the Corps of Engineers can assist in solving their water resource related issues. He is a registered Civil Engineer in the Commonwealth of Kentucky since 2002 and certified Project Management Professional since 2007 and has been with the Corps since 1995. He is a 1998 Graduate of the University of Louisville with a Bachelor's of Science and Masters' of Engineering in Civil Engineering.
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Annemarie Cason
After joining the Kentucky Division of Water’s GIS & Data Analysis section 5 years ago to perform outreach for the RiskMAP program, Annemarie discovered an interest in GIS and has focused on that aspect of her role in subsequent years. She now assists in managing the mapping portals found at watermaps.ky.gov and with promoting the use of GIS at KDOW.
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John "J.P." Carsone
J.P. has more than 36 years of experience in the utility, engineering, and construction fields. Currently, he is a Flood Protection Supervisor with Louisville MSD and the Vice-Chairperson of the Oldham County Water District’s Board of Commissioners. J.P. also serves as the team lead for MSD’s Business Strategy for Disaster Recovery and Business Continuity and is a core member of the team revising the Louisville Metro Hazard Mitigation Plan. He has been involved in the Kentucky Silver Jackets Team for the past three years and is one of the founders of the Louisville Metro Silver Jackets Chapter.
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JoAnn Combs
JoAnn Combs, CFM, MPM - Serves as an Economist and Project Manager with the Huntington District USACE. Ms. Combs’ duties include performing economic analysis on USACE studies; reviewing/updating levee screening consequences; Ohio and West Virginia Silver Jackets team Co-Lead and LRH representative on the Kentucky Silver Jackets team; provide technical assistance on Floodplain Management Services requests; works with GIS and HAZUS programs; outreach for various USACE programs and authorities including Floodplain Management services, Planning Assistance to States, and Continuing Authorities Program; serves on the Special Emphasis Committee. Ms. Combs has served 8 years with the Huntington District USACE; 4 years in Project Management and 4 years in Planning Branch. Certified Floodplain Manager; Masters in Project Management.
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Speaker Biographies

Matt Crawford
Matt Crawford received a B.A. from Hanover College and an M.S. from Eastern Kentucky University. He is an engineering geologist with the Kentucky Geological Survey and has been employed there for 14 years. His research focuses on landslide characterization and conditions that lead to slope failure. Matt also maintains a statewide landslide inventory database and associated landslide interactive map service. He has participated in several KYEM/FEMA landslide hazard mitigation grant program applications by providing reports to the applicants regarding the geologic conditions and landslide observations related to failure.
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Neal Crawford
Neal Crawford serves as a Project Manager at Qk4 in the Water and Wastewater Department. Neal specializes in stormwater design, flood protection, wastewater design, site development and potable water design. Neal has a Bachelors/Masters' Degree in Civil Engineering from the University of Louisville and is a licensed Professional Engineer practicing in multiple states. He currently serves as the Treasurer of the Louisville Chapter of KSPE and is the Louisville Chapter Coordinator for Mathcounts.
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Meghan Dunn
Meghan Dunn is a geographic information science specialist in the AECOM Louisville office. Meghan assists with a MS4 GIS consulting efforts, Illicit Discharge Detection and Elimination and program support, RiskMAP Post Preliminary management and community engagement, and Hazard Mitigation Grant writing. Meghan’s experience includes GIS data creation, MS4 program implementation, developing hazard mitigation plans, and community engagement and outreach.
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Kristen Dunaway
Kristen Dunaway is the water policy analyst in the AECOM Louisville office, focusing on water quality and quantity issues. Kristen assists communities with MS4 permit implementation, hazard mitigation, KDOWs Risk Map efforts, developing and implementing stormwater utilities, and supports MS4 communities with permit development, implementation and program support. Kristen’s experience includes developing Stormwater Quality Management Plans, MS4 program development and implementation, developing hazard mitigation plans, implementing hazard mitigation strategies, FEMA Risk MAP, ordinance preparation, policy documents, consent decree implementation, and stormwater utility level of service and cost of service studies.
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Doug Eades
Doug Eades is a Systems Analyst and Systems Integration Manager/GIS Lead for Kentucky Division of Emergency Management. He is also the program manager for the CHAMPS system. Doug is currently acting as the Chair of the National Information Consortium (NISC), which was launched in 2012 and strives to improve emergency management information sharing.
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Speaker Biographies

Brian Gathy
Brian D. Gathy has been the Director/Program Coordinator at the University of Kentucky Hazard Mitigation Grants Program Office (UK-HMGP) for the past 10 years. Brian operates and manages budgets and contracts between KYEM and UK along with managing mitigation and planning projects and day-to-day administrative responsibilities. His past professional experience has focused on administration, financing, and capital projects. Throughout his career at UK, Brian has served as Director of Finance for Campus and Auxiliary Services, Senior Research Administrator in the Office of Sponsored Projects Administration, and as the Business Officer for the Capital Project Management and Real Property Office. Brian also founded, co-owned, and was Chief Financial Officer (CFO) for C&G Construction, a commercial construction company and general contractor that operated in Lexington, KY. With over 25 years of experience dealing with federally-funded capital project budgets and contracts, Brian has extensive knowledge in dealing with match requirements. Brian holds a Master’s Degree in Public Administration from the UK Martin School of Public Policy and Administration and also earned a B.A. in Political Science with a focus on budgeting from UK. Email: bdgath2@uky.edu

W. Nick Grinstead
Nick Grinstead works for the Hazard Mitigation Grants Program Office at the University of Kentucky (UK-HMGP). In UK-HMGP’s capacity as administrative support staff for Kentucky Emergency Management (KYEM), Nick acts as KYEM’s hazard mitigation planner and planning project grants manager. In order to be eligible for FEMA hazard mitigation grants, the Commonwealth of Kentucky and its jurisdictions all must have hazard mitigation plans. Nick is responsible for the Commonwealth’s hazard mitigation plan and for reviewing and editing local jurisdictions’ hazard mitigation plans. Nick manages the projects and contracts that fund hazard mitigation plans and eligible hazard mitigation planning activities. In addition, Nick manages some capital hazard mitigation projects and contracts. Given the nature of funding hazard mitigation plans and projects, Nick has significant experience dealing with project match and the use of in-kind match and its subsequent reliance upon implicit valuation of time and resources. Nick holds a Master’s Degree in Public Policy from the University of Kentucky and currently is pursuing his doctorate. He also holds a Bachelor of Art’s Degree in Economics with a Minor in Political Science and Spanish. Email: nick.grinstead@uky.edu

Christina Groves
Christina Groves, CFM is a Specialist with the Community Rating System covering 5 states within 3 FEMA Regions (Kentucky and Tennessee (R-IV); Indiana (R-V); Virginia and West Virginia (R-III); within the 5 states she manages 140+ communities. Christina has been with the CRS Program for 7 years. Prior to joining the ISO/CRS team Christina was the Director of Development Services for a nine jurisdiction planning commission. During her tenure with the planning office, some of her responsibilities included: management of construction on the Special Flood Hazard Area (SFHA), plat review, drafting zoning ordinances and enforcement, comprehensive planning and the review and adoption of new Flood Insurance Rate Maps (FIRMs). Email: cgroves@iso.com

Dave Herndon
Dave is Planning Services Coordinator with Community and Development Services. Under supervision of the Director, he supervises the Planning Division, providing Planning services for both the City of Hopkinsville and Christian County. In addition to his traditional planning responsibilities, Dave is highly involved in the flood mitigation efforts for the City of Hopkinsville and provides day-to-day supervision of the Municipal Separate Storm Sewer System (MS4) program. Dave has a Bachelor’s Degree in Political Science and a Masters’ in Public Administration from Murray State University. He is a Certified Floodplain Manager and Certified Planner. Email: dherndon@comdev-services.com
Speaker Biographies

Josh Human
Josh Human is a Senior Associate at Stantec in Louisville. As a leader in disaster management and resilience practice, he is helping expand Stantec’s footprint into these fields. Josh brings expertise in the fields of hazard mitigation planning, resilience planning, recovery planning, Geographic Information System (GIS) assessment modeling, hazard research, and community engagement. Before joining Stantec, Josh helped facilitate the formation of the Center for Hazards Research and policy Development at the University of Louisville. He has presented internationally on disaster management and resilience. Josh is a founding member and former Chair of KAMM.
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Carey Johnson
Carey Johnson is an Environmental Scientist Consultant in the Kentucky Division of Water’s (KDOW) Director’s Office. His primary responsibilities include coordinating water resources-related activities across the Division and managing the Cooperating Technical Partners (CTP) program for the Commonwealth of Kentucky. He has overseen flood hazard map updates for all counties in Kentucky and is currently leading Risk MAP efforts. He serves on the KY State Hazard Mitigation Council, the statewide LIDAR/orthoimagery technical advisory committee, the FEMA CTP Community of Practice steering committee, and on the FEMA Technical Mapping Advisory Council annual report subcommittee. Carey is also the state lead for the Kentucky Silver Jackets charter. He is a founding member and current chair of the Kentucky Association of Mitigation Managers (KAMM). Carey spent 3 years as the KY state NFIP Coordinator prior to managing the CTP program.
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Samantha Johnson
Samantha Johnson has worked as an environmental scientist for KY Division of Abandoned Mine Lands (AML) for 8 years. Samantha drafts design reclamation plans, reviews plans to ensure environmental quality for the NEPA review process and supports AML with USACE, state, and local permit applications. Prior to working at AML, Samantha worked in both the floodplain management and dam safety sections at KY Division of Water for 7 years, where she assisted the NFIP and Map Modernization programs, reviewed stream construction applications and managed the national inventory of dams grant submittal.
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Sharlie Khan
Sharlie Khan is the Project Administrator for Louisville MSD. She acts as the lead on all grant application and administration efforts. Sharlie has had a long and diverse career in civil engineering field with experience not limited to survey, construction inspection and management, project design and management and now grants.
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Emory Kidd
Emory Kidd has been the Metcalfe County Emergency Management Director since 2006 and the Metcalfe County Floodplain Coordinator since 2010. He is a graduate of Western Kentucky University with a double major in Chemistry and Biology and a minor in math.
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Jeremiah Lant
Jeremiah Lant is a Hydrologist for the USGS Kentucky Water Science Center. He received his M.S. in geodetic science from Ohio State University and his B.S. in physics from the University of Kentucky. His work involves hydrodynamic modeling, rainfall-runoff modeling, and software development.
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Amanda LeMaster
Amanda LeMaster has served as a Hazard Mitigation Grant Manager for KYEM since 2011 and primarily works out of the Big Sandy, Kentucky River and Barren River Area Development Districts securing mitigation funding.
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Keld Madsen
Keld Madsen has 10+ years of professional geospatial consulting services experience and serves as the Information Management Department Manager and Sr. Project Manager for Amec Foster Wheeler in Nashville. He has extensive project management experience and has managed several applied technology and application development projects implemented as both desktop, web based, mobile and cloud hosted solutions. The main body of his work has been implementing decision support systems on various systems to both federal, state agencies, commercial and industrial clients.
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Kristen Martinenza
Kristen Martinenza is a Civil Engineer for the Mitigation Division at the Federal Emergency Management Agency (FEMA). She has been with the Region IV office in Atlanta, Georgia since December 2008. Kristen currently serves as the Acting Program Lead for the Region IV Cooperating Technical Partners (CTPs). She manages project status of studies and provides technical and regulatory guidance to the CTP partners. In addition, she is the lead of the BCA team which includes reviewing mitigation projects for Hazard Mitigation Assistance Branch. She also conducts training on Risk MAP, Benefit Cost Analysis and technical and mapping issues for States and Local communities throughout Region IV. She is registered as a Professional Engineer and a Certified Floodplain Manager.
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Cindy Minter
Cindy Minter, AICP, CFM, serves as the Director of Planning and Zoning for Campbell County, Kentucky and was the recipient of the KAMM 2015 Mitigation Manager of the Year award. Cindy was instrumental in guiding 14 jurisdictions within the County to adopt new Flood Insurance Rate Maps and complementary floodplain ordinances. These efforts were completed in concert with the implementation of the initial provisions of the Biggert Waters Act of 2012. Overwhelmed by the rising cost of flood insurance premiums, Cindy worked with five of the six communities which comprise the Campbell County and Municipal Planning & Zoning Commission to enter the Community Rating System. Cindy is a graduate of Northern Kentucky University, having majored in Computer Science. Prior to joining the County, Cindy worked with several national engineering firms providing planning and environmental services for over 200 communities throughout the United States.
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James McCallon
James McCallon is a GIS Analyst for Prime AE Group who specializes in the integration of GIS with increasing flood resiliency of communities. He has worked with multiple communities throughout the country in an effort to utilize GIS in their flood mitigation efforts by using advanced analysis techniques to understand their true risk and identify potential mitigation options.
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Chad McCormick
Chad McCormick, PE, CFM; Water Resources Manager; Land Design and development, Inc. Mr. McCormick is the Water Resource Manager with Land Design and Development, Inc. He has served numerous large and small communities in Kentucky, Indiana, Tennessee and Ohio with stormwater quality and quantity design, consulting and utility management services since 1992. Chad is a Certified Floodplain Manager and Licensed Professional Engineer in Kentucky, Tennessee and Indiana. He enjoys camping, hiking and SCUBA diving with his wife and two children.
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**Speaker Biographies**

**Davis Murphy**
Davis Murphy is a Water Resources Engineer residing in the AECOM Louisville office where he primarily plans and executes floodplain analysis work for Flood Insurance Studies, dam safety, and roadway drainage. Davis received his Master of Engineering in Civil Engineering from the University of Louisville J.B. Speed School of Engineering. He has eight years of professional experience in floodplain hydrology and hydraulics.

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**Stephen O'Leary**
Stephen O'Leary AIA, CFM - Serves as a Architect/Planner and Project Manager with the Huntington District USACE. Mr. O'Leary’s duties include USACE Nonstructural Flood Risk Management SME; USACE Nonstructural Flood Proofing Committee Member; West Virginia Silver Jackets Lead, project manager/team member on the Levee Safety Policy and Procedures Team (LSPPT), developing the new Levee Safety Program Engineering Circular (EC 1110-2-6072); Course owner for the USACE Planning Associates FRM course; Served 15 years in the Planning Branch and 10 years in Engineering and Construction Division as the District’s Senior Architect. The majority of his USACE Career has focused on flood risk management studies/reports, implementation of FRM projects and mitigation of flood prone structures. Certified Floodplain Manager; Licensed Architect.

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**Lori Rafferty**
Lori Rafferty is a Professional Engineer and Certified Floodplain Manager. She has worked in the engineering field for 18 years, working at MSD for the past 12 years. She has a Bachelor of Science and Master of Engineering in Civil Engineering from the University of Louisville. Lori is currently the floodplain administrator and Community Rating System coordinator for Louisville-Jefferson County and also oversees the floodplain grant program.

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**Abigail Rains**
Abigail Rains started her career in state government in May 2001 in the Division of Water’s Enforcement Branch where she issued notices of violations and negotiated and settled cases of noncompliance with municipalities and companies to return them to compliance with regulations. She became the states’ Pretreatment Program Coordinator in July 2004, where her past experience in wastewater treatment plant operations was very useful in working with municipalities as they worked with industries to find a balance between successful commerce and protection of the wastewater treatment plants. Currently, Abigail is the MS4 Coordinator for the Division of Water. Ms. Rains has been the MS4 Coordinator since January 2007 and works to ensure programs remain in compliance with the permit. Ms. Rains received a B.S. in Biology from Lincoln Memorial University and has taken graduate classes pursuing a M.S. in Environmental Science.

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**Stephanie Robey**
Stephanie Robey has been with Kentucky Emergency Management (KYEM) for over seven (7) years, serving first as the Recovery Branch Manager and now in her current position as Assistant Director of Administration. Ms. Robey has over 20 years of state government experience; having served as the Kentucky Transportation Cabinet’s Director of the Division of Accounts, Chief of Staff to the Auditor of Public Accounts, and Department of Financial Institution’s Director of Planning and Management. Prior to state government, Ms. Robey worked in the banking industry.

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**Jason Robinson**
Jason Robinson is an Environmental Scientist for the KY Division of Abandoned Mine Lands. He has been with the Division for 12 years in design and construction oversight roles. He has a BS in Agriculture from Tennessee Technological University and MS in Soil Science from the University of Kentucky.

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Speaker Biographies

Chris Rust
Christopher J. Rust, P.E. is a graduate of the University of Louisville (BSCE, MSCE) and Project Manager with Strand Associates, Inc.
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Sean Sheffer
Sean is the director of the Union County Planning Commission and serves as the Union County Floodplain Administrator where he regulates and permits development in flood prone areas. Sean also acts as a project manager for the Union County Levee Project that includes accreditation of two different levee systems within the cities of Sturgis and Uniontown. Sean received a Bachelor of Science of Civil Engineering from Western Kentucky University and holds a PE and is a CFM. He has 12 years of professional experience in engineering and project management.
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Ben Shinabery
Ben Shinabery, PLS is a land survey project manager at Qk4, Inc. where he specializes in high definition digital terrain modeling through traditional survey, 3D Laser Scanning and Aerial Drone Mapping. His land survey experience includes field work in Michigan, Indiana, Kentucky, Tennessee, Alabama, and Florida. Ben has been licensed in Kentucky since 2007 and has worked on notable projects such as the Ohio River Bridges project, the KFC Yum Center, Kentucky Touchstone Energy UAS Economic Development, Interstate 71 widening, and the Parklands of Floyds Fork. In his spare time, he enjoys cycling, golf, woodworking, and collecting historic maps and axes.
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Toby Spalding
Toby Spalding was born and raised in Marion County where he graduated from Marion County High School. He attended the University of Louisville Speed School from 1988 to 1992. Toby was then a self employed contractor building houses and other construction projects until September of 1996. From 1996 to 2006, he worked for Qk4 Engineering in Louisville. During this time he managed over $44 million in construction projects for MSD. He also designed over $29 million in sewer and drainage projects. He is currently head of the Engineering, Storm Water and Public Works Departments. He is married with four children, and when not running them to their many activities, he enjoys tending his 133 acre farm.
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Joe Sullivan
Joe Sullivan has been the Warning Coordination Meteorologist at the National Weather Service in Louisville since 2007. A native of Iowa, Mr. Sullivan has a B.S. in Meteorology from Iowa State University and worked as a TV meteorologist in Springfield, MO prior to joining the NWS in 1987. Prior to Louisville, his NWS career included stops in Kansas, Nebraska, Iowa, Wyoming, Colorado and Missouri. His career focus has been interaction with emergency management to protect lives and property.
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Michael Taylor
Michael Taylor is a Project Manager with AECOM. He has worked on the Kentucky Risk MAP program since 2009. Michael is a Professional Engineer registered in Kentucky.
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**Speaker Biographies**

**Sarah Taylor**
Sarah Taylor has over 14 years of experience in water resources and is a graduate of the University of Louisville with a Master’s Degree in Civil and Environmental Engineering. She is the owner of GeoMorphics, a woman owned business with a focus on providing geographic information system (GIS) services, environmental engineering, and water resource solutions. Sarah has dedicated her career to serving communities through sustainable water resource design and management solutions.
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**Mark Vieira**
Mark has been a Civil Engineer in FEMA’s Region IV Mitigation Division since 1992. He has served as the Region IV lead engineer for the NFIP, floodplain mapping, and Map Modernization programs and now is involved with RiskMAP. He manages the Regional Flood Study, Outreach, and Program Management Contractors groups and is the lead engineer on levee issues. He serves on several FEMA Headquarter Work Groups. Mark provides technical information in workshops for surveyors, engineers, and local building officials and has been an instructor at the Emergency Management Institute. He began his career in floodplain management as the Stormwater Management Coordinator for the Metropolitan Nashville and Davison County, Tennessee, Public Works Department. After working in Nashville for nine years, Mark worked for three years as a Senior Civil Engineer - Project Manager for the City of Savannah, Georgia. With FEMA, Mark has been involved with LOMCs, “No-Rise” Certification and HMGP project review processes. He has had many disaster assignments including Preliminary Damage Assessment, Technical Assistance, Emergency Response Team Advance Element, Building Performance Assessment Team, Substantial Damage Estimator Program Instructor and Deputy Federal Coordination Officer - Mitigation. Mark graduated from Tennessee Technological University, Cookeville, TN in 1980, with a BS degree in Civil Engineering. While in college, Mark worked for the State of Tennessee, Department of Public Health, Water Quality Control where he is a registered Professional Engineer. Mark is married with two children and one grandchild and lives in Buford, GA. In his spare time, he makes quilts.
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**Susan Wilson**
Susan W. Wilson, CFM, is Chief of the Floodplain Management and Insurance Branch, Mitigation Division of the U.S. Department of Homeland Security, Federal Emergency Management Agency, Region IV, in Atlanta, Georgia. Susan joined Region IV in 1983, and has worked extensively with all eight states in the region. Susan and staff provide assistance and guidance to communities in the mitigation of floods and other natural hazards, the development of local floodplain management programs, and issues relating to flood insurance, and manage the records for the Mitigation Division. Ms. Wilson served as the Regional insurance specialist from 1985-2007 frequently teaches floodplain management and flood insurance related courses for FEMA at the Emergency Management Institute and other training venues. From 1985-1995, Susan served as the project officer for the Section 1362 Acquisition Program which was responsible for acquiring more than 150 severely flood damaged buildings and converting the properties to permanently deeded open space land use. Prior to joining FEMA she worked as a community planner at the Coosa Valley Area Planning and Development Commission in Rome, Georgia, and the Georgia Department of Community Affairs. Susan holds a Bachelor of Arts degree, cum laude, from Wittenberg University, and a Masters degree from the University of Georgia.
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Speaker Biographies

**Esther White**
Esther White has worked as a Project Grants Manager for the UK’s Hazard Mitigation Grants Program and KYEM since 2007, working with over 150 communities, agencies, nonprofit organizations, and private sector partners statewide to develop and secure FEMA funding for numerous technical multi-hazard mitigation projects. Esther holds degrees in Business Administration and Public Administration and serves on the Executive Board of Directors for KAMM.
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**Mike Woolum**
Michael A. Woolum P.E., PLS, is a graduate of the University of Kentucky College of Engineering (BSCE) and a Vice President with Strand Associates, Inc.
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**Demetrio Zourarakis**
Demetrio P. Zourarakis is a GIS and Remote Sensing Analyst with the Kentucky Division of Geographic Information. His duties include data processing and information analysis as well as outreach and agency consultation and coordination. He also administers the Kentucky Esri Site License Program for Postsecondary Education. He holds GISP (GISCI) and Certified Mapping Scientist (ASPRS) – Remote Sensing and GIS/LIS certifications and recertifications. He holds a Ph.D. from the University of Kentucky, a M.Sc. from Iowa State University and a B.S. from the University of Buenos Aires, Argentina. Demetrio is a charter member of the Kentucky Association of Mapping Professionals and the Cumberland Chapter of URISA. He is a member or chair of several state, regional and national technical committees, and serves in several advisory roles to projects and programs. He has received numerous awards, published articles and monographs and presents regularly at conferences.
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KAMM Board of Directors

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The election of officers shall take place at the annual meeting. Election shall be a majority of all votes cast by Individual members in good standing. The officers shall take office for two years.

**Chair** – The Chair shall preside at all meetings of the Board of Directors, the annual meeting, and shall see that orders and resolutions of the Board are carried out. In addition, the Chair shall convene the official board meetings on at least a quarterly basis. The Chair will prepare the association’s annual report to ASFPM and complete newsletters periodically to be submitted to the general members.

**Vice Chair** – The Vice Chair shall act in the place and stead of the Chair in the event of absence, inability or refusal to act, and shall exercise and discharge such other duties as may be required by the Board. In addition, the Vice Chair will be in charge of coordinating the annual conference with a conference team and shall keep an updated list of conference attendees.

**Secretary** – The Secretary shall record the votes and keep the minutes of all meetings and proceedings of the Board and of the members. In addition, the Secretary will maintain a membership list with current contact information, and shall perform such other duties as required by the Board.

**Treasurer** – The Treasurer shall have the custody and control of the funds of the Association, subject to the action of the Board of Directors, and shall, when requested by the Chair or Board, report the state of the finances of the Association at each meeting thereof. In addition, the Treasurer shall be responsible for sending out annual membership notices and collecting dues.

**At-Large Representatives**

The Board of Directors consists of two At-Large Representatives one of which is elected by the general membership, the other at-large position is held by the Immediate Past Chair. The duties of the At-Large Representatives are as follows:

1. The At-Large Representatives will provide guidance and assistance to the Regional Representatives during their regional meetings.
2. Participate in the development and proceedings of the KAMM annual conference.
3. Provide information and guidance developing the KAMM website.

**Regional Representatives**

KAMM is divided into four regions. During the annual conference, members at the regional meetings select Regional Representatives. The representatives shall take office for two years and serve on the Board of Directors. Regional Representatives selections occur in alternate years for Regions I and III and Regions II and IV. Each regional Representative represents the membership in one of the four geographic regions. The duties of the Regional Representatives are as follows:

1. Call at least one annual regional meeting to promote mitigation activities including trainings, project updates, and fact sharing sessions.
2. Participate in the development and proceedings of the KAMM annual conference.
3. Disseminate mitigation information and act as a KAMM regional representative for local members.
4. Provide regional information to the Chair that will be used to develop the KAMM newsletter.
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