2018 KAMM Conference Presentation Overview

KAMM
Kentucky Association of Mitigation Managers

Tuesday Presentation Overview

PLENARY: Carey Johnson, KAMM Chair

Title of Presentation: KAMM State of the Union

KAMM's Chair will provide an overview of KAMM's past year and a vision for KAMM's future.

PLENARY: Carey Johnson, Bill Caldwell, Kentucky DOW & Drew Andrews, KGS

Title of Presentation: Kentucky Risk Assessments

Representatives from the Kentucky Division of Water (KDOW) and Kentucky Geological Survey (KGS) will provide an overview of the flood, drought, and geologic hazards risk assessments that were conducted for the 2018 State Hazard Mitigation Plan Update. Insight will be provided on risk assessment findings and areas of potential mitigation focus.

KEYNOTE: Kevin Mickey

Title of Presentation: Mitigation Saves: Observations and Next Steps

In 2005, the Multihazard Mitigation Council (MMC) of the National Institute of Building Sciences conducted a widely cited study, Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities, which documented how every $1 spent on mitigation saves society an average of $4. The Council recently issued its Natural Hazard Mitigation Saves: 2017 Interim Report, highlighting the cost effectiveness of 23 years of federally funded mitigation grants and the benefits of designing new buildings to exceed provisions of the 2015 model building codes. This presentation will offer insights on the background of this new study, its findings, and the implications that it has for mitigation planning. In addition, the presentation will explore efforts that the Institute has taken to identify practical incentives for businesses, financial institutions, insurers, builders, homeowners, and other stakeholders to undertake resiliency efforts.

3 CONCURRENTS - 11:00 – 11:50 AM
50-MINUTE PRESENTATIONS

Presenter: Nick Grinstead

Title of Presentation: Commonwealth of Kentucky Enhanced Hazard Mitigation Plan Update for 2018

The final draft of the Commonwealth of Kentucky's 2018 Hazard Mitigation Plan is currently under review at FEMA. This presentation will discuss all of the components of the Commonwealth's hazard mitigation plan and will act as a final set of planning meetings that can occur during review stages of plan drafts and before adoption. Stakeholder comments on the plan draft will be recorded, mitigation goals for the Commonwealth will be discussed, and how participants' local hazard mitigation plans coordinate and integrate with the Commonwealth's plan will be of particular focus.

Presenter: Geni Jo Brawner

Title of Presentation: Hazard Mitigation Funding Opportunities

The Hazard Mitigation Assistance (HMA) Program has three programs that offer funding for eligible subrecipients to complete hazard mitgation projects and plans. Pre- Disaster Mitgation (PDM), Flood Mitigation Assistance (FMA), and the Hazard Mitigation Grant Program (HMGP) will be reviewed, and we will discuss eligibility requirements for each program.

2018 KAMM Conference Presentation Overview

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Presenter: Bill Kappel

Presentation Audiences: Dam Safety, Hydrologists, Engineers, Regulators

Title of Presentation: Probable Maximum Precipitation - How The Process Has Improved and Where We Are Headed

Applied Weather Associates (AWA) has completed more than 100 Probable Maximum Precipitation (PMP) studies over the last 20 years, including several in the immediate region surrounding Kentucky. During that time, significant advances have been applied that better quantify extreme rainfall characteristics and deal with the effects of topography on rainfall accumulation. This presentation will detail the PMP development process, present results from studies AWA has completed that are relevant for Kentucky and discuss how updated PMP can be applied to Kentucky and provide significant benefit and improved safety.

3 CONCURRENTS - 1:00 – 1:50 PM
50-MINUTE PRESENTATIONS

Presenters: Mike Greene & Emily Groves

Title of Presentation: Statewide HAZUS

Kentucky is one of the first states in the country to complete a HAZUS level 2 flood analysis for the entire state. KDOW developed a plan to perform the analysis while leveraging all of the work KDOW has been performing as part of the Kentucky RiskMAP program. A team of contractors including Stantec and AECOM developed procedures in leveraging previous and ongoing work to perform 120 individual county-based studies. These studies will be the basis of future hazard planning at the county and Area Development District (ADD) level. The presentation will include details on how the work was performed as well as plans on disseminating data moving forward.

Presenter: Esther White

Presentation Audiences: Local Officials, Emergency Managers, Planners, and other Mitigation Superheroes

Title of Presentation: Flood Mitigation Assistance Grants for Mitigation Superheroes

Utilizing FEMA's Flood Mitigation Assistance (FMA) grant program, local mitigation superheroes have successfully mitigated flooding risks in their communities. The current FMA program offers grants for NFIP-insured properties at up to 100% federal share for qualifying properties. This session will give an overview of past and current project activities funded in Kentucky through FMA, explain the grant program, and provide the necessary information for submitting FMA applications for potential future projects in your community.

Presenter: Christina Groves

Presentation Audiences: Mappers, GIS/Community Rating System

Title of Presentation: Why use GIS in… FEMA's National Flood Insurance Program's Community Rating System?

Community GIS staff are often tasked with helping the floodplain coordinator prepare data to support the city/county's upcoming Community Rating System (CRS) review process. The involvement of mappers on the local level is increasing as we see the participation in this "step beyond" the NFIP

minimums continue to grow. In this session, you will hear a brief overview of the program, and learn the value of GIS in successful CRS participation.

CRS program support requires a number of items that are based on GIS data and/or maps such as: acreages of designated flood zones; structure counts in flood zonesmap information services; stormwater impact adjustment maps; digital maps available to the community staff for use in the day-to-day management of the floodplain; critical facilities in the floodplain; and open space in the floodplain.

While these items do not account for everything, they are some of the most requested data during a verification visit. Items in the program are weighted in value at different levels as outlined in the 2017 CRS Coordinator's Manual and all cumulatively play a role in reducing the premiums of flood insurance for policy holders in the jurisdiction.

3 CONCURRENTS - 2:00 – 2:30 PM
30-MINUTE PRESENTATIONS

Presenter: Aaron Jones

Title of Presentation: DLG Flood Control Match and CERF Programs

The Flood Control Match Program is administered by the Department for Local Government (DLG), Office of Federal Grants. The program uses state bond funds (Capital Budget) as grants to help local communities meet cost-share match requirements associated with projects funded by federal sponsors. Some examples are, but not limited to, U.S. Army Corps of Engineers, FEMA, USGS, Natural Resources Conservation Service (NRCS) and USDA Rural Development. Projects previously funded include acquisition and relocation of homes from flood prone areas, construction and reconstruction of floodwalls and small dams, debris removal from creeks and small rivers, elevation of structures located in flood plains, and flood studies for future projects. As a result of disaster declarations this year, the presentation also addresses the Community Emergency Relief Fund (CERF) program. CERF funds are provided to give communities a means to restore infrastructure or housing that severe weather or natural disasters have negatively impacted.

Presenters: Katelyn Henry & Carey Johnson

Presentation Audiences: Local Officials, Emergency Managers, GIS

Title of Presentation: Structure-Based Risk Assessment

The KDOW, and its study contractor, AECOM, have conducted a pilot project in the City of Hopkinsville to develop methodology for structure-based risk assessment instead of the traditional "in-or-out" flood risk methodology. This process leverages individual structure characterizations with existing RiskMap products to calculate a risk score which can be used in a variety of ways by policy-makers to mitigate the at-risk areas in their communities.

Presenter: Victor Althoff

Presentation Audiences: Anyone that is faced with flood mitigation concerns

Title of Presentation: 100% Passive No Manpower No Electricity

FloodBreak has been building and installing 100% Passive/Automatic Flood Gates since 2002 for the federal government, states, cities, private industries, and levee districts throughout the US, Canada, and other continents. FloodBreak gates have been used in numerous FEMA and USACE funded projects.

FloodBreak custom-built floodgates require no manpower or electricity for deployment, are resistant to harsh weather conditions, and have no limitation in height and length. Our gates are installed on roadways, vehicle entrances, and for pedestrian traffic. We also provide gates for below grade and above grade vent protection and are installing gates to protect subways in the MTA. FloodBreak's FreeView River Barriers can be installed into existing levees, along rivers, and on boardwalks for additional height protection while not eliminating visibility or access. FloodBreak also provides manual flood mitigation solutions, including Flood Doors, Planks/Logs, Swing Gates, Roller Gates, hatches, window protection, and temporary flood mitigation products. Additional information, pictures, and videos can be found and viewed on our website: www.floodbreak.com

2 HOUR WORKSHOP - 2:45 - 4:35 PM

Presenter: Alex VanPelt

Presentation Audiences: Floodplain Coordinators, Local Officials, Surveyors, Engineers

Title of Presentation: NFIP 101 Workshop

This introductory workshop will discuss the basics of the NFIP and how it is applied in the Commonwealth. Topics covered will include an overview of the NFIP, floodplain requirements at the state and local level, how to find & utilize flood risk information, and available tools. Attendees will be able to understand the goals of the NFIP and be able to identify the actions the program takes to accomplish those goals to reduce flood hazards in the Commonwealth.

2 CONCURRENTS - 2:45 – 3:35 PM
50-MINUTE PRESENTATIONS

Presenter: Jim Urban

Presentation Audiences: Floodplain Coordinators and Emergency Managers who are considering FMA grants

Title of Presentation: Elevation or Demolition of Flood Hazard Structures along the Ohio River

The Kentucky shoreline of the Ohio River is a bucolic place to live until the spring rains start and flooding is compounded by upriver snow-melt. Flood cleanup isn't fun for anyone so we have partnered with property owners, KYEM and FEMA since 2014 to acquire or elevate structures, mitigating impacts. Learn from Oldham County about our experience with FMA grant application and management, outreach and project implementation.

Presenter: Christina Groves

Presentation Audiences: Mappers, GIS/CRS, Emergency Managers, Floodplain Coordinators, Stormwater Outreach staff

Title of Presentation: CRS Activity 330 Outreach Projects: What Types of Outreach Receive Credit?

What can you do in Activity 330 Outreach Projects to attain more credit in the CRS? We will look at outreach opportunities, share ideas, and score a few outreach projects. This session will assist with growing your current outreach program or helping you create a new one for a community as part of the efforts to reduce the premiums of flood insurance for policyholders in the jurisdiction.

2 CONCURRENTS - 3:45 – 4:35 PM
50-MINUTE PRESENTATIONS

Presenter: Josh Human

Presentation Audiences: Hazard Mitigation Planners

Title of Presentation: Hazard Mitigation Planning...What Does Success Look Like?

During the presentation, we will explore the successes of 16 years of Hazard Mitigation Planning. We will break down each section of a Hazard Mitigation Plan and highlight success stories from the planning process throughout multiple communities by exploring real world examples of the Planning Process, Risk Assessment, Mitigation Strategy, Plan Maintenance, and Plan Adoption. Lastly, the presenter will look to you to share your planning successes.

Presenters: Lori Rafferty & Matt Schaaf

Title of Presentation: Communicating Flood Risk to the Public

Communicating flood risk to the public is very important, but can be difficult. Louisville Metropolitan Sewer District (MSD) has used several outreach methods to explain the potential impacts of flooding and the importance of flood safety and insurance. This presentation will give an overview of how MSD has communicated with the public, which methods and topics were best received, and how this outreach impacts the CRS program.

Wednesday Presentation Overview

PLENARY: Carey Johnson, KAMM Chair

Title of Presentation: Kentucky Silver Jackets. See insert in conference packet.

3 CONCURRENTS - 9:45 – 10:15 AM
30-MINUTE PRESENTATIONS

Presenters: Ashley Stephens & Dan Frank

Presentation Audiences: Local Officials and Emergency Managers

Title of Presentation: National Levee Inventory and Review Program

This presentation will focus on describing the objectives and goals of the National Inventory and Review Program and describe program efforts in the Commonwealth of Kentucky. The U.S. Army Corps of Engineers (USACE) has authority via the Water Resources Reform and Development Act (WRRDA) 2014 to conduct ongoing levee inventory efforts and a one-time review of non-federal levee systems in the National Levee Database (NLD). The continuing inventory portion of this effort will identify jurisdictional levees and base spatial data collection for their inclusion into the NLD. Currently, the NLD indicates over 8,000 levee systems (roughly 15,000 miles of levee) beyond the USACE portfolio. The subsequent review effort, depending upon availability of funding and levee owner/operator permission, includes an inspection of the identified levees followed by a screening-level risk assessment. Results will include the inspection findings in a Levee System Summary to inform the levee owner. Additionally, the proposed risk assessment results will establish a screening-level understanding of potential consequences and likely levee performance, inform emergency management readiness actions and hazard mitigation, and

support partnerships, through unified understanding, that can align and prioritize flood risk management efforts.

Presenter: Justin Boldt

Presentation Audience: Emergency Managers, Local Officials

Title of Presentation: Flood Inundation Mapping

Floods are the leading cause of natural-disaster losses in the United States. More than 75 percent of declared Federal disasters are related to floods, and annual flood losses average almost $8 billion with over 90 fatalities per year. Although the number of fatalities has declined due to improved early warning systems, economic losses have continued to rise with increased urbanization in flood-hazard areas. The USGS Flood Inundation Mapping (FIM) Program helps communities protect lives and property by providing tools and information to help them understand their local flood risks and make cost-effective mitigation decisions.

Presenter: Abigail Rains

Presentation Audiences: Local Officials

Title of Presentation: Mission (Finally) Accomplished: Reissuing the Phase II MS4 Permit

This presentation will discuss the trials of reissuing a General Stormwater Permit for small Municipal Separate Storm Sewer Systems (MS4s) during a federal lawsuit and subsequent regulation changes. The presentation will go through the three public notices of the permit and will discuss the changes that made it into the final permit.

3 CONCURRENTS - 10:20 – 11:50 AM
30-MINUTE PRESENTATIONS

Presenter: Mario Sebastiani

Title of Presentation: 1D vs 2D Dam Breach Modeling

According to the 2016 update to the National Inventory of Dams, there are more than 90,580 dams in the United States and approximately one third of these dams pose a “high” or “significant” hazard to life and property if failure occurs. Needless to say, the importance for preparedness in case of a dam failure in your community is at an all-time high. In this presentation, we will explore a dam breach scenario on an existing “high-hazard” dam and compare the differences between routing the breach through the downstream reach using HEC-RAS 1D and HEC-RAS 2D. We will compare the 1D and 2D results and share the positives and negatives experienced with each analysis.

Presenter: Kevin Miller

Title of Presentation: Floodplain Inundation Mapping using Combined One-Dimensional/Two-Dimensional Models

Flood hazard assessment and emergency management both rely on accurate flood inundation mapping. One-dimensional (1D) modeling has long been the standard for evaluating floods, but sometimes a two-dimensional (2D) model is necessary to adequately capture the true nature of the flood. A combined 1D/2D model may allow for the assessment of complex hydraulic conditions in a cost-effective manner. This presentation provides a case study which utilized a combined 1D/2D HEC-RAS model to evaluate the consequences of a dam breach and develop inundation mapping for an emergency action plan. Topics include evaluating the need to include 2D modeling, the data requirements for developing 1D/2D

models, considerations during model setup and calibration, and methods for presenting results. The presentation also addresses model stability challenges due to a steep flow path and the wide range of flows assessed. This case study highlights how advanced modeling methods can be tailored to evaluate complex hydraulics and provide cost-effective flood inundation mapping.

Presenter: Jim Turner

Presentation Audiences: Local Officials, Engineers, Planners

Title of Presentation: Targeted Stream Restoration

While the goals of many stream restoration projects are focused on ecological or water quality improvement, other projects are more narrowly focused on engineering-related goals. These "targeted" projects may be based on the protection of public infrastructure, stabilization of actively eroding channels or flood damage mitigation. The design of these targeted projects can include natural-channel design techniques such as channel relocation, grade control structures, bank stabilization and vegetation improvements. This presentation will include a review of several stream restoration projects in Ohio where engineering goals were the primary objective. The setting for these projects range in size from large streams (80 square mile watershed) to small tributary channels with associated construction values of $600,000 to less than $50,000. The planning, design and construction of each project will be reviewed with an emphasis on critical success factors. These factors include permitting, conservative design approaches, materials selection and managing the project within limited budgets.

3 CONCURRENTS - 11:00 – 11:50 AM
50-MINUTE PRESENTATIONS

Presenter: Brandon Brummett

Presentation Audiences: Anyone potentially seeking water resources assistance from USACE

Title of Presentation: All You Ever Needed or Wanted to Know About USACE

The US Army Corps of Engineers has four major Civil Works Missions; flood & storm risk management, commercial navigation, ecosystem restoration, and watershed planning. Under those four missions, numerous programs and authorities are available to assist state and local governments with their water resources needs. This presentation and discussion will give an overview of these programs, a brief overview of the Corps of Engineers process in developing a civil works project, and give some background on the USACE and the Louisville District. 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.

Presenter: Derek Fellows

Presentation Audiences: Local officials, emergency managers, planners

Title of Presentation: 406 is in the Mix! Understanding the 406 Mitigation Process

FEMA will present the basics of 406 mitigation, implementing mitigation during recovery and the funding opportunities that occur within the Public Assistance Program.

Presenter: Dale Salmon

Title of Presentation: Introduction to Simple Low Impact Development (LID) Stormwater Treatment Design – a Case Study

2018 KAMM Conference Presentation Overview

Three years ago, a group of High School students in Mt. Washington developed, proposed and succeeded in implementing Low Impact Development (LID) features for a new downtown library to achieve on-site capture and treatment of an 80th percentile rain event - a success that has since "changed the landscape" of construction design in Mt. Washington and Bullitt County. This presentation will use this library project to provide a "walk-through" introduction to employing the "EPA National Stormwater Calculator" tool to evaluate and select LID features to achieve stormwater capture and treatment standards for new development or re-development projects in your community.

3 CONCURRENTS - 1:00 – 1:50 PM
50-MINUTE PRESENTATIONS

Presenters: Marilyn Thomas, Sean Craig & Doug Barber

Presentation Audiences: Engineers (Civil, Geotechnical), Local Officials, Dam Safety Officials

Title of Presentation: Scenic Lake Dam – Liquefaction Analysis and Deep Mixing Method (DMM) Construction

KDOW manages the State-Owned Dam Repair (SODR) program, which invests Capital Construction and Mitigation dollars for state-owned dam and ensures that state-owned dams are constructed to regulatory specifications. The SODR has proactively acquired at-risk properties, collaborating with local communities to restrict development downstream of dams, which has saved millions of dollars that otherwise would have been spent on upgrading dam structures because of the change in risk class resulting from downstream development.

Scenic Lake Dam, located in John James Audubon State Park, was originally constructed in the 1930s. While designing improvements to modernize the dam and spillway, AECOM determined the soils under the dam were at risk for liquefaction during a strong earthquake, particularly given Western Kentucky's historical seismicity. Remediation was achieved with a technique known as the Deep Mixing Method (DMM) in which in-situ soils are strengthened by mixing with cement in a geometric configuration to resist the design soil loads.

KDOW has awarded Construction of the DMM zone to Raito, Inc. Construction activities are set to begin May-2018 with a Substantial Completion date of September-2018 and Final Completion of October-2018. Presentation will focus on Design Considerations and Construction Activities.

Presenters: Laurel Matula & Jimmy Stahl

Title of Presentation: Don't Leave 406 Hazard Mitigation Funding on the Table!

Did you know KY counties, cities, and state agencies left greater than $200M of 406 Hazard Mitigation funding on the table in past disasters? 406 Hazard Mitigation can double FEMA public infrastructure permanent repair grant dollars, yet it is under-requested. Learn key "ask" times, funding cycles, and common approved project phrases. This will be a high energy and interactive session.

Presenters: Esther White & Alanna Conley

Presentation Audiences: Local officials, Emergency Managers, Planners

Title of Presentation: Emergency Management, Hazard Mitigation and Nonpoint Source Programs: Planning Together Today for Resilient Community Watersheds of Tomorrow

Proactive watershed-based planning includes new ways to minimize the after effects of flooding events. Infiltration basins, curb cuts, landscaped swales, roadway/bridge elevation, flood proofing, and

early warning notification systems are examples of mitigation efforts to divert a portion of flow from communities and reduce the loss of life and property damage within a watershed. These projects can be effective components in resilient community watershed planning. A collaborative team of federal, state, local and community voices is vital in identifying risks, vulnerabilities, key education and outreach messages, and long - term resilience strategies before, during and after hazard events within a watershed. Planning teams must also be knowledgeable about sources of mitigation funding and how to build eligible mitigation implementation projects into nonpoint source watershed planning. During this session, audience members will learn more about green infrastructure and hazard mitigation activities that are eligible for Clean Water Act Â§ 319 (h) and Hazard Mitigation Grant Program (HMGP) funding and beneficial overlaps between the two programs. The benefits of forming collaborative partnerships for community resilience and natural resource protection will be explored. Finally, an overview and list of potential emergency management partners will be provided for audience members to consider when developing future watershed management plans.

3 CONCURRENTS - 2:00 – 2:50 PM
50-MINUTE PRESENTATIONS

Presenters: John “Bud” Plisich

Title of Presentation: Hurrcane Joaquin in South Carolina and Hurricane Matthew in North Carolina - Lessons Learned in Risk Communication and Risk Management For Dams

From October 2015 to October 2016, there were 84 state-regulated breached dams in two states. In South Carolina, 51 breached due to flooding and 20 breached dams were related to flooding from Hurricane Matthew. North Carolina had 13 state-regulated dams breached due to Hurricane Matthew. The post-disaster assessments of the dam failures and the dam breaches showed the need for improvements to risk communication on all levels, including enhancements to FEMA guidelines for RiskMAP. This presentation will cover key observations and strategic recommendations on risk communication identified during a post-event risk management assessment. Recommendations will also be presented on enhancing risk communication for dams in the RiskMAP process, including modeling and mapping the effects of dams and potential dam breaches. An overview of resources under development from FEMA-funded contract efforts that will benefit Kentucky will be provided. Resources include five fact sheets (successful efforts performed, a dam breach report, a hydrology report, three Technical Advisories and two response and recovery matrices for dams). The presentation will also include an overview of four Dam Safety fact sheets that are being developed to better incorporate dams into RiskMAP.

Presenters: Alex VanPelt & Christina Groves

Title of Presentation: Common Permit & Elevation Certicate Mistakes

When it comes to floodplain management, knowing that something was done and being able to show that something was done are two completely separate things. Accurate documentation is critical to implementing effective floodplain management actions in the Commonwealth. This session will focus on some of the common, and often easily correctable, errors for floodplain permits and elevation certificates, as well as some tips and tricks that will enable participants to avoid future pitfalls in their floodplain management programs.

Presenters: Chelsea Klein & Kate Ryan

Title of Presentation: Green Infrastructure in Mitigation

FEMA EHP will highlight FEMA mitigation projects where Green Infrastructure and Bioengineering was utilized.

3 CONCURRENTS - 3:05 – 3:55 PM
50-MINUTE PRESENTATIONS

Presenters: Emory Kidd & Amanda LeMaster

Presentation Audiences: All EM Director / Mitigation Managers

Title of Presentation: Preparing a Community for Natural Disasters through Notification Systems and Tornado Safe Rooms

Metcalfe County shares a local success story of how a rural county used four different notification systems to provide 100% coverage for its communities and implemented the construction of tornado safe rooms countywide.

Presenters: Christina Groves & Brian Bishop

Presentation Audiences: Mappers, GIS/Community Rating System, Emergency Managers, Floodplain Coordinators

Title of Presentation: Is the Repetitive Loss Area Analysis Right for your Community to Obtain Points in the Community Rating System?

An often-overlooked opportunity for credit in the CRS program can be found in Activity 510. The Repetitive Loss Area Analysis is both insightful and beneficial to communities when created and is an opportunity for points in the program. The City of Henderson has completed the five-step process as outlined in the Coordinator's Manual. In this session, we will look at the steps and provide a chance for you to consider this credit for your community as part of the efforts to reduce the premiums of flood insurance for policyholders in the jurisdiction.

Presenter: Marshall Carrier

Title of Presentation: KYTC Bridge Program

KYTC has identified more than 1,000 critical bridges in need of rehabilitation or replacement due to deteriorating conditions. A program budget of $700 million is proposed to address these needs over the next 6 years. This is obviously a tremendous undertaking and the project team is charged with the planning, management, development, delivery and oversight for the rehabilitation and/or replacement of deteriorated bridges identified in the Bridge Program. The goal is to optimize funding and develop a potentially varied program delivery model for lettings. The Project Team is also tasked with developing a comprehensive communications plan that will coordinate with KYTC to keep the public and stakeholders abreast of the program's status and delivery.

3 CONCURRENTS - 4:10 – 4:40 PM
30-MINUTE PRESENTATIONS

Presenter: Sarah Taylor

Presentation Audiences: Local Officials, Engineers, Planners

Title of Presentation: Cashing in on Stream Restoration

A walk through strategy, funding, and development of partnerships in Louisville that are building a link between mitigation and stream restoration projects.

Presenter: Alex VanPelt

Title of Presentation: The Future of Floodplain Management in Kentucky

The presentation will focus on the proposed changes to the NFIP by Congress' reauthorization bill as well as the proposed KDOW regulation changes. This presentation will outline what these proposed changes mean to local communities and officials.

Presenter: William (Drew) Parker

Title of Presentation: Incorporating Green Infrastructure/Low Impact Development into your local Hazard Mitigation Plans

Presentation Audience: Local officials, planners, emergency managers

Incorporating Green Infrastructure/Low Impact Development into your local Hazard Mitigation Plans- Managing the Quality and Quantity of Water Resources within Communities. 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.

Thursday Presentation Overview

PLENARY: Joe Sullivan & Mary Lamm

Title of Presentation: The Flood of '18 - a Top 10 Flood on the Lower Ohio

The Ohio River is no stranger to flooding, but the heavy rains of February 2018 produced some of the highest water levels in over 20 years for some locations, including Louisville. River gauges reached Moderate Flood Stage at a number of gauges, and some even saw Major Flood Stage levels surpassed.

3 CONCURRENTS - 9:20 – 9:50 AM
30-MINUTE PRESENTATIONS

Presenter: Bradley Heilwagen

Presentation Audiences: Local Officials, Emergency Managers, Planners

Title of Presentation: Hydrologic Warning Systems: Helping Mitigation Superheroes Respond to Floods

Since the dawn of time, hydrologic disasters have impacted the citizens of Kentucky, causing loss of life, property, and damage to the environment. The peaceful balance of the hydrologic cycle is often disrupted by the villainous Mother Nature, and abetted by evil deeds like construction in areas susceptible to floods. Mitigation superheroes everywhere fight the good fight against these villainous and evil acts.

Joining these guardians of mitigation is the National Hydrologic Warning Council (NHWC). With a vision for all superheroes to effectively use hydrologic information and warnings to protect their citizens, the NHWC provides education, training, and standards. With help from NHWC, communities can warn of imminent danger from hydrologic events through the use of real-time, automated remote data collection networks, modeling and analyses, and integrated forecast and warning systems. They assist managers and operators with the design, implementation, operation, and use of these systems, forming partnerships and integrating networks for maximum benefit.

This presentation will give a brief summary of the NHWC, provide a general overview of hydrologic warning systems in use by superheroes around the world, and will walk attendees through the process and benefits of implementation of a hydrologic warning system at a local level.

Presenter: Tim Wallin

Presentation Audience: Local Officials, Surveyors, Engineers, Emergency Managers, Planners, GIS, etc.

Title of Presentation: Success Story: Boyd County Landslide Projects

The Boyd County Code Enforcement Department will discuss the success they have had during their three HMGP Landslide Projects covering seven homes. We will discuss how the growing landslide problem in Boyd County turned into several KYEM/FEMA projects. Next, we will discuss the process of working with FIVCO ADD in doing the landslide projects as well as what it was like to work with the homeowners. In addition, we will discuss working with the Boyd County Road Department in the demolition process. Finally, we will discuss what the future holds for more Landslide HMGP projects in Boyd County.

Presenters: Tony Marconi & Marc Thomas

Presentation Audiences: Local Officials, Emergency Managers

Title of Presentation: 2018 Ohio River Flood Recovery - Louisville Metro

Louisville MSD is responsible for maintaining and operating the Louisville Metro Flood Protection system which consists of 29 miles of floodwall and earthen levee including 16 flood pump stations which protect 110 square miles of Metro Louisville from flooding along the Ohio River. On February 26, 2018 the Ohio River reached a crest of 35.6 feet on the upper gauge and 67 feet on the lower gauge at McAlpine Lock and Dam in Louisville. This is the highest recorded flood level since 1997 and required significant flood fighting and subsequent recovery effort. To track recovery efforts, assess damages and ultimately file insurance and Federal assistance claims Louisville MSD hired RA Consultants to provide project management and administrative services. This presentation will cover the damages and impacts of the flood, the repair efforts undertaken, methods for tracking recovery efforts and costs, and assistant programs and insurance coverage that were used to submit claims for assistance and recover costs.

3 CONCURRENTS - 10:05 – 10:55 AM
50-MINUTE PRESENTATIONS

Presenter: Marshall Carrier

Title of Presentation: I69 ORX Project update

Kentucky and Indiana are committed to improving the I-69 corridor by creating an I-69 Ohio River Crossing between Henderson and Evansville. Moving the project from conversation to construction

requires a focus on Performance Based Flexible Solutions to ensure technical and financial feasibility. Field studies are wrapping up with emphasis on Environmental impact and Justification. Public comment is well underway with the goal of choosing the preferred alternate fall 2018 and publishing the Draft Environmental Impact Statement for a public hearing. Will provide an update on floodway analysis and screened alternatives. Record of Decision is expected in 2019.

Presenters: Christina Groves & Bobby Carpenter

Presentation Audiences: Mappers, GIS/CRS, Emergency Managers, Floodplain Coordinators

Title of Presentation: Are You Ready to Get CRS Credit for your Work in Emergency Management?

We will use the session to review a completed questionnaire for CRS Actvity 610 Flood Warning and Response. Copies will be provided to you and we encourage you to complete answers for your community while we go through it together.

Will you find your community is ready for this credit? If not, we hope you will be able to leave the session with further knowledge of the items you will need to bring this credit to your community to assist in the efforts to reduce flood insurance premiums.

Presenter: Sheila McKinley

Presentation Audiences: Floodplain Managers, Emergency Managers, Planners, Engineers

Title of Presentation: 10 Lessons Learned from 20+ Flood Response Plans

With every major flood, there comes an overwhelming level of activity and a need for quick information and response. A flood response plan documents the flood response process, informs those involved in the chain of command, lists specific responsibilities and task assignments, and provides a schedule of activities tied to the different stages of the flood fight. A good plan helps prevent duplication of effort and wasted resources, and helps avoid gaps in response and recovery. This plan is especially important in providing continuity during flood events where the most experienced staff may be unavailable due to vacation, retirement, or otherwise not reachable. Drawing from firsthand experience leading to the development of more than 20 flood response plans in Indiana, this presentation will share 10 of the most helpful and insightful lessons learned to improve flood event detection, communication, expected actions, and post flood follow-up protocols for local floodplain managers everywhere.

3 CONCURRENTS - 11:05 – 11:55 AM
50-MINUTE PRESENTATIONS

Presenters: Matthew Stoffer & Patrick Creager

Presentation Audiences: Engineers, Emergency Managers, GIS

Title of Presentation: Large Scale Automated Engineering Uses, Benefits, & Credibility

Overview of the uses, benefits, and credibility of performing Large Scale Automated Engineering (LSAE) studies. Topics to be discussed are motives behind performing LSAE studies, requirements to upgrade LSAE studies to regulatory products, and the methodology and tools used to perform hydrology and hydraulics on a watershed-wide basis. Final products and deliverables from these studies include HEC-RAS models, floodplains, depth grids, water surface elevation grids, and work maps. This data can be utilized to perform analysis of the validity of effective products and to estimate potential losses from flooding. Other topics to be discussed are using LSAE methodology to perform rapid response analyses in emergency situations.

2018 KAMM Conference Presentation Overview

KAMM
Kentucky Association of Mitigation Managers

Presenters: Tony Edwards, Jason York & Bobby Carpenter

Presentation Audience: Emergency Management & local officials

Title of Presentation: Common Ground: The Connection Between Emergency Management and Floodplain Management

The session will introduce an exciting user-friendly tabletop exercise collaboration. The tabletop exercise can be used in your home communities to bring awareness to the dangers of flooding and severe weather. A robust talk about how the duties of an Emergency Management Directors coincide with that of Floodplain Coordinators and how we can help each other to identify and mitigate flood hazards in our communities.

Presenters: Ryan Hermann & Cindy Minter

Presentation Audiences: GIS, Emergency Manager and Planners

Title of Presentation: Drone Support in 2018 Flooding in Campbell County for Return on Investment (ROI)

Extensive GIS data and Drone work was presented and shared with USGS. Campbell County Fiscal Count was able to use this data combined with field data from the Fire Department, citizen historic data, and active survey work to leverage this as a local match-in-kind for the USGS Flood Inundation Study for Four Mile Creek.

In May, USGS added an extra $18K to the budget using these in-kind services as a 50/50 match. The USGS team complimented us on the useful detail of the data, stating that it is rare to receive this level of community cooperation. We will also be showcasing a few of our watershed story maps and Northern Kentucky Map Lab (NKYmapLABs) during this presentation.