2023 Ohio Statewide Floodplain Management Conference

Session Descriptions

Planning Ahead to Prepare for Climate Change at the Local Level

Attendees are not required to pre-select any sessions at the conference and may customize their conference experience by attending any session that is relevant to their interests and educational needs. Please feel free to move to different Tracks according to your interests. We have tried our best to align the session schedule, but you may notice some differences in session start and ending times.

This document includes summaries of *many* of the sessions at the 2023 conference. We have also suggested a "Target Audience" for all sessions so that attendees can more easily select sessions
Beginner: Generally new to Floodplain Management & the National Flood Insurance Program (NFIP)
Intermediate: Moderate amount of experience with Floodplain Management & the NFIP
Advanced: Significant amount of experience with Floodplain Management & the NFIP &/or engineering related.

WEDNESDAY, JULY 26, 2023

9:00 – 10:00am **KEYNOTE ADDRESS**

Climate Extremes: Risk, Uncertainty, & Resilience

Presented by *Aaron B. Wilson PhD, Research Scientist – Ohio State University Extension & Byrd Polar & Climate Research Center*

Summary *Dr. Wilson will discuss the risk our communities face due to extreme climate events and how communities can develop resilience.*

Target Audience Everyone

TRACK 1 **PROTECTING WATERSHEDS THROUGH FLOODPLAIN MANAGEMENT**

10:15 - 11:15am **Navigating Floodplain Permitting for Stream Restoration**

Summary *Stream restoration projects present unique hurdles in regard to floodplain permitting. While these projects provide opportunities to reduce flood impacts within a community the nature of stream restoration design requires that the stream horizontal and vertical alignment be significantly modified to create a stable stream and encourage healthy ecological function. Modification of the stream channel results in impacts to the BFE that would require CLOMR permitting prior to construction. However, stream restoration projects are often funded with grant dollars that require construction to occur within a certain timeline. Meeting this timeline can be difficult given the typical FEMA review time frame. This presentation will discuss stream restoration in general and present permitting approaches to allow Floodplain Administrators to permit stream restoration projects with their Floodplain Development Permit Application. It will discuss several different permitting scenarios that could be encountered based on the type of Special Flood Hazard Area and the varying permitting approaches for each scenario. The presentation will also present hydraulic HEC-RAS modeling techniques used to provide results that accurately compare the base flood elevations at specific locations throughout the project.*

Target Audience Everyone

11:15am - Noon **South Fork Licking River Watershed Flood Damage Reduction Efforts – A Strategy for Success**

Summary *The Licking River is a tributary of the Muskingum River in Central Ohio. A tributary of the Licking River, the South Fork Licking River Watershed has a drainage area of 181 square miles, which includes Buckeye Lake. Interstate 70 transects the South Fork Licking River watershed. Over recent years a collaboration of several local agencies have been working together to address legacy flooding issues within the watershed, impacting the interstate, numerous communities and infrastructure over a wide area. The solutions to the flooding issues require using a holistic approach to reduce future flood damages throughout the watershed, including addressing the recurring flooding and closure of Interstate 70.*

The Licking County Commissioners and the South Licking Watershed Conservancy District, with funding support from the Muskingum Watershed Conservancy District, are sponsoring studies to identify flood damage reduction solutions. A robust stakeholder involvement strategy has been at the center of this overall effort. The Licking County Soil and Water Conservation District has coordinated strong communication with stakeholders throughout the watershed. This stakeholder coordination is essential to building a base of support for the study and the process of implementing flood damage reduction measures.

The on-going studies have resulted in the development of a HEC-RAS 2D model for a large portion of the South Fork Licking River. HEC-RAS 2D model accounts for the large and flat floodplain topography, as well representing the storage and non-uniform flow of flood waters. The 2D model

includes culverts and bridges and allows for the study to anticipate the impacts of flood damage reduction measures both upstream and downstream within the watershed.
Supplementing the 2D model is a watershed-scale hydrologic model prepared to also represent the complexities of the South Fork Licking River watershed, including the portion of the watershed tributary to Buckeye Lake, where flood waters migrate from one sub-watershed to another. The hydrologic model is being used to simulate the capture and detention of flood waters at dry dam locations throughout the watershed. A combination of hydrologic solutions and other measures to improve flood carrying capacity can address the flooding issues in a manner that ensures the flooding will not be passed to downstream communities. The South Fork Licking River Watershed Flood Damage Reduction project will be an example of this holistic approach and a model for future flood mitigation efforts.

Target Audience Intermediate - Advanced

TRACK 2 **FLOODPLAIN MANAGEMENT FOR RESILIENCY**

10:15 - 11:00am **Looking at the Puzzle Pieces for Future Flood Risk Management including the Future of Flood Risk Data (FFRD), Federal Flood Risk Management Standard (FFRMS), SWMM, HEC-RAS, & 2-D Modeling**

Target Audience Intermediate - Advanced

11:00 - 11:30am **Not All Floods Are Mapped – Recognizing Flood Risk Beyond Mapping**

Summary *Nearly half of all NFIP claims come from outside the 1% annual floodplain - why is this? How can we be better aware of what might cause flooding? This presentation will briefly examine the differences in flood maps versus true flood risks.*

Target Audience Beginner - Intermediate

11:30am - Noon **Utilization of 2D Hydraulic Modeling for Infrastructure Assessment: Grand Rapids & Providence Dams**

Target Audience Intermediate - Advanced

TRACK 3 **THE BASICS OF FLOODPLAIN MANAGEMENT**

10:15 - 11:30am **So… You're a New Floodplain Manager, What Do You Need to Know?**

Summary *This presentation will share tools and resources for new Floodplain Managers to assist them in their National Flood Insurance Program's administration. Concepts covered will include: NFIP basics, flood hazard mapping, floodplain management regulations, & flood insurance.*

Target Audience Beginner

11:30am - Noon **Understanding How to Read & Use a Flood Insurance Rate Map (FIRM) & Flood Insurance Study (FIS) – Part 1**

Summary *This presentation will provide an overview of floodplain mapping through the NFIP. Using the Flood Insurance Study (FIS) to determine the Base Flood Elevation (BFE) will also be discussed. This presentation is geared towards newer floodplain managers or participants who want to brush up on the basics of mapping. Part 1 of 2.*

Target Audience Beginner

TRACK 1 **PROFESSIONAL DEVELOPMENT IN FLOODPLAIN MANAGEMENT**

1:30 – 3:30pm **Certified Floodplain Manager (CFM) Bootcamp**

Summary Session will help individuals learn how best to prepare for ASFPM's Certified Floodplain Manager (CFM) Exam. Attending this session is not a guarantee of passing the exam.

Target Audience Everyone

TRACK 2 **KEEPING ON TRACK**

1:30 – 2:30pm **Developing a Substantial Damage Management Plan**

Summary *All communities participating in the National Flood Insurance Program (NFIP) have adopted, and are expected to enforce, a floodplain management ordinance that meets or exceeds the NFIP minimum standards at 44 CFR §60.3, including those addressing substantial damage and substantial improvements within the community's floodplain area.*

Target Audience Everyone

2:30 – 3:30pm **How to Keep it Moving: Troubleshooting the Letter of Map Revision (LOMR) Development & Review Process**

Summary *Session will provide an overview of requirements & workflow of the LOMR process, discussion of common roadblocks that will delay the review process of submittals (ex: hydraulics, levees, tie ins, violations, LOMRs in the context of ongoing studies, & potential impacts to adjacent communities).*

Target Audience Advanced

TRACK 3 **THE BASICS OF FLOODPLAIN MANAGEMENT**

1:30 – 2:00pm **Understanding How to Read & Use a Flood Insurance Rate Map (FIRM) & Flood Insurance Study (FIS) – Part 2**

Summary *Part 2 of 2*

Target Audience Beginner

TRACK 3 — **THE BASICS OF FLOODPLAIN MANAGEMENT**

1:30 – 2:00pm
Understanding How to Read & Use a Flood Insurance Rate Map (FIRM) & Flood Insurance Study (FIS) – Part 2

Summary: *This presentation will provide an overview of floodplain mapping through the NFIP. Using the Flood Insurance Study (FIS) to determine the Base Flood Elevation (BFE) will also be discussed. This presentation is geared towards newer floodplain managers or participants who want to brush up on the basics of mapping.*

Target Audience: Beginner

2:00 – 3:00pm
Understanding Hydrology & Hydraulics – Basics for Floodplain Managers

Summary: *H&H is a cornerstone of the NFIP, but who understands it? This presentation is targeted at non-engineer floodplain managers to introduce the basics of how H&H is developed and utilized.*

Target Audience: Beginner

3:00 – 3:30pm
NFIP Floodplain Management Regulations & Letters of Map Change – Part 1

Summary: *A Letter of Map Change (LOMC) is a letter that reflects an official Amendment or Revision to an effective FEMA Flood Insurance Rate Map (FIRM). There are two basic categories of LOMCs: Amendments and Revisions. We will discuss different types of LOMCs and when they are required through the NFIP.*

Target Audience: Beginner - Intermediate

TRACK 1 — **WHEN YOU NEED TO KNOW, YOU NEED TO KNOW…**

3:45 – 4:30pm
Requesting Post-Disaster Assistance

Summary: *Session will discuss how communities can request assistance performing damage assessment from the Ohio Building Officials Association (OBOA) in their community after an overwhelming disaster event.*

Target Audience: Everyone

4:30 – 5:00pm
Ohio EMA Mitigation Update

Summary: *Attendees will receive a status update on Ohio EMA Mitigation Branch activities as well as upcoming grant opportunities and deadlines.*

Target Audience: Everyone

TRACK 2 — **ASSESSING RISK IN YOUR COMMUNITY, PLANNING & TAKING ACTION**

3:45 – 4:30pm
State Mapping Prioritization & Identifying Mapping Needs in Your Community

Summary: *This presentation will discuss a brief history of floodplain mapping and the status of where we are today. We will discuss the state prioritization tool, the Coordinated Needs Management Strategy (CNMS) and how to identify mapping needs for your community. This tool and identified mapping needs help to determine future funded mapping projects for Ohio.*

Target Audience: Beginner - Intermediate

4:30 – 5:15pm
Camp Ravenna Master Plan & Stormwater Control

Target Audience: Everyone

TRACK 3 — **THE BASICS OF FLOODPLAIN MANAGEMENT**

3:45 – 4:15pm
NFIP Floodplain Management Regulations & Letters of Map Change – Part 2

Summary: *A Letter of Map Change (LOMC) is a letter that reflects an official Amendment or Revision to an effective FEMA Flood Insurance Rate Map (FIRM). There are two basic categories of LOMCs: Amendments and Revisions. We will discuss different types of LOMCs and when they are required through the NFIP.*

Target Audience: Beginner - Intermediate

4:15 – 5:15pm
Introduction to Flood Insurance through the NFIP

Summary: *This session is an introduction to the (NFIP's) rating methodology. You learn about key concepts of the pricing methodology including...*
1. Rating elements related to where and how a structure is constructed;
2. Rating elements related to what is covered and the amount of coverage selected;
3. Rating elements related to loss history; and,
4. Discounts.

Target Audience: Everyone

THURSDAY, JULY 27, 2023

8:00 – 8:30am **Ohio Floodplain Management Association (OFMA) Update**

Summary: OFMA will provide an update of organizational activities and plans.

Target Audience: Everyone

TRACK 1 **GETTING TECHNICAL**

8:30 – 9:15am **Base Flood Elevations in Zone A's**

Summary: *Present recent program activities in Huntington District US Army Corps of Engineers related to our FPMS Quick Response effort as well as show casing our Base Flood Elevation program.*

Target Audience: Everyone

9:15 – 10:00am **Making the Most Out of USGS Mapping Data & Services: topoBuilder & more!**

Summary: *This presentation will provide an overview on the status of 3DEP, discuss the availability of delivered lidar data in Ohio and how to access it from the National Map and the Ohio Spatial Data Infrastructure portal. This presentation will also demonstrate what's new from the U.S. Geological Survey (USGS) National Geospatial Program and how to make the most of the resources available through The National Map (TNM) and related tools. One new tool is the recently released topoBuilder application, which enables users to create custom, on-demand topographic maps using the best available TNM data. Through topoBuilder, users can request topographic maps from anywhere in the United States or territories. A variety of customizations, such as user-centered map extent, level of contour smoothing, and exports to GeoTIFF or Geospatial PDF formats are currently available. Map scales include 1:24,000 for the conterminous United States and Hawaii; 1:20,000 for Puerto Rico, Virgin Islands, and the other U.S. territories; and 1:25,000 for Alaska. Additional customizations, such as user-selected layers, user-added content, GIS data exports, and additional map scales are planned.*

Target Audience: Intermediate - Advanced

TRACK 2 **PARTNERSHIPS FOR BETTER FLOODPLAIN MANAGEMENT**

8:30 – 9:00am **USACE Programs & Authorities Related to Flooding & Flood Reduction**

Summary: *During an emergency especially related to flooding the US Army Corps of Engineers have emergency response authority which can either provide technical assistance immediately prior or during an event. Capabilities under PL 84-99 will be outlined, and the steps needed to request assistance will be identified. In addition, an in-depth over-view of technical service authorities to include Planning Assistance to States, Flood Plain Management Services and the Silver Jackets Program will be highlighted. The intent of this presentation is to outline the authorities under the flood risk management cycle related to response, recovery, mitigation, and preparation. With a greater understanding of these authorities, Flood Plain Managers and Emergency Managers will have a greater understanding of Corps of Engineers authorities in order to assist in reducing the impacts related to high water events or flooding.*

Information on the Corps Interagency Proposal Program will also be discussed. Finally, information on the Silver Jackets program will be highlighted. The Corps of Engineers has developed an inventory on dams and levees and information on accessing these websites will provided. Five US Army Corps of Engineers districts are represented in Ohio and this presentation will provide contacts in each of the Districts.

Target Audience: Everyone

9:00 – 9:30am **The Evolution of Levee Regulations, Accreditation & Mapping**

Summary: *An introduction to how levees are incorporated into floodplain mapping and a summary of the evolving regulatory framework leading up to the National Levee Safety Program initiative being undertaken by FEMA & USACE.*

Target Audience: Everyone

9:30 – 10:00am **FEMA & USACE Levee Safety Program Update**

Summary: *FEMA & USACE have been tasked with undertaking the National Levee Safety Program Initiative. ODNR has been participating in the public outreach opportunities and collecting information on the progress of the initiative. This presentation will summarize the progress and the proposed future of this new program.*

Target Audience: Everyone

TRACK 3 **PRE & POST-FLOOD HEALTH & SAFETY CONSIDERATIONS**

8:30 – 9:00am **Building Resilient Communities Though Building Codes**

Summary: *Presentation on the importance of strong building codes for building resilient communities.*

Target Audience: Everyone

9:00 – 10:00am **After the Flood: Fundamentals of Mold Growth in Homes**

Summary *Session will discuss the mold growth and implications in homes affected by flooding.*

Target Audience Everyone

10:00 – 10:15am **BREAK & EXHIBITS**

TRACK 1 **FLOODPLAIN MANAGEMENT, CHANNEL MAINTENANCE, & ADDRESSING STORMWATER**

10:15 – 11:00am **Implementation & Maintenance of Two-Stage Ditches in Lucas County**

Target Audience Intermediate - Advanced

11:00 – 11:30am **Ditch Maintenance in Lucas County Using the ORC Ditch Petition Process**

Target Audience Intermediate - Advanced

11:30am - Noon **Regional Stormwater Detention Basins – Treating Urban Runoff Outside Your Project**

Summary *As urban development continues to surge, available space within the public right-of-way for infrastructure becomes scarce. The need for stormwater management projects is ever increasing, and additional regulations and treatment requirements are emerging throughout the country. When all onsite alternatives are infeasible, municipalities and agencies can investigate offsite treatment for stormwater management. This presentation will investigate the approach used for the City of Columbus Regional Basins project. It will describe the site selection and design of regional basins, which serve as stormwater credit banks for projects that cannot meet necessary stormwater management within their project limits. These basins also meet critical storm and water quality requirements and position stormwater management throughout the urban environment. The presentation will include the methods used to identify regional best management practices, the regulations involved with offsite mitigation on a regional scale, and lessons learned when implementing basins of this size.*

Target Audience Everyone

TRACK 2 **FLOODPLAIN MANAGEMENT ON THE GROUND**

10:15 – 11:00am **Post-Construction Best Management Practices (BMPs) are Important**

Target Audience Everyone

11:00 – 11:30am **Floodplain Management Regulations - The Applicant's Perspective**

Summary *This presentation will discuss some of the common floodplain management regulations, as interpreted and addressed by an Applicant's Design Consultant.*

Target Audience Everyone

11:30am - Noon **Using 2D Modeling Techniques for Base Level Engineering Study Development**

Target Audience Advanced

TRACK 3 **POST-FLOOD CONSIDERATIONS**

10:15 – 11:15am **Post-Flood Health Considerations Roundtable Discussion**

Summary *Representatives from Ohio Department will discuss the health implications of flooding and respond to questions from conference attendees.*

Target Audience Everyone

11:15 – 12:15pm **Floodplain Design & Construction with Impacts on Flood Insurance**

Summary *This course provides insight into the importance of proper foundation flood vents and dry floodproofing techniques for buildings located in a flood zone. It will identify FEMA Technical Bulletins 1, 2, and 3, the National Flood Insurance Program, ASCE 24-14, ICC, and Building Code regulations and standards as they relate to sustaining foundations and overall business continuity in flood hazard areas. The course will also analyze the role of building compliance in securing lowering flood insurance rates and what mitigation solutions are available for both residential and non residential structures.*
After the course, participants will have a thorough understanding of floodproofing options and the important role they play in designing a sustainable structure.

Learning Objectives:
• Describe floods and the potential hazards to buildings.
• Explain the differences between wet and dry floodproofing techniques.
• Define the differences in engineered and nonengineered flood openings and their ability to ensure resilient structures.
• Active vs. passive floodproofing solutions and the overall impact of ownership.

Target Audience Everyone

TRACK 1 — **IMPROVING FLOOD HAZARD MAPPING**

1:45 – 2:30pm — **Geodesy & Datums for the Floodplain Manager**

Summary — *Join this session for a look at the NFIP EC, LOMA, and LOMC processes from the perspective of a Geodesist and Certified Floodplain Surveyor (CFS) who has been involved in both the usage and creation of FIS and FIRM data. Jeff will discuss how the datums and geodetic control provided by the National Geodetic Survey (NGS) play an integral role in the NFIP. This will include a review of CRS Credits for community contributions to the National Spatial Reference System (NSRS). We will conclude with a brief overview of the future vertical datum that will replace NAVD88, the North American-Pacific Geopotential Datum of 2022 (NAPGD2022) which is scheduled to be finalized in 2025.*

Target Audience — Intermediate - Advanced

2:30 – 3:30pm — **Policies, Programs & Resources: What's New in the World of Floodplain Management**

Summary — *Session will provide an update on national policy affecting floodplain management, new initiatives and data (including First Street Foundation data), and new information from the Association of State Floodplain Managers (ASFPM).*

Target Audience — Everyone

3:30 – 4:00pm — **5 Acres or 50 Lots – Understanding How to Regulate Zone A Areas With No BFEs**

Summary — *Approximate Zone A is a difficult area to regulate. In some ways, there is very little restriction for what can be built or how it might impact flooding. But at the same time, if certain thresholds are met there may be a heavy burden on the floodplain administrator and the developer to improve mapping. This presentation will explore these requirements and how you can stay compliant.*

Target Audience — Everyone

TRACK 2 — **MAPPING FOR BETTER FLOODPLAIN MANAGEMENT**

1:45 – 2:30pm — **Forecast-Based Flood Inundation Maps for the State of Ohio**

Summary — *For over two decades, the emergency management community, other government officials, and the private sector have articulated a growing need for real-time, detailed, actionable, street-level Flood Inundation Maps (FIM) depicting the extent, depth, and infrastructure impacted by flood waters. In 2017, the National Weather Service (NWS) began a considerable effort to develop continental scale flood inundation mapping services that would help previously underserved communities. With support from Congress, the National Water Center (NWC) was born in Tuscaloosa, Alabama to develop and implement a National Water Model. Together, the NWC and local NWS offices like the Weather Forecast Offices serving Ohio and the Ohio River Forecast Center are working to provide forecast and real-time analysis FIM capabilities down to the neighborhood level for the entire country. This ongoing project is a tremendous undertaking that will be gradually implemented across the country in the coming years. In the first phase of this gradual rollout, portions of western Ohio will have these forecast-based FIMs made available in October of 2023. Then, over the next couple of years, these services will be made available across the entire state of Ohio.*

Target Audience — Everyone

2:30 – 3:00pm — **Unique Approach in Using HEC-HMS Hydrology Methodology to Support HEC-RAS Modeling**

Target Audience — Advanced

3:00 – 4:00pm — **Frequently Asked Questions in Floodplain Management**

Summary — *ODNR staff discuss topics from their most frequent technical assistance calls from residents, floodplain administrators, and other state agencies. Topics include; Logjams, Elevation Certificates (ECs), Decks, Pools, and more.*

Target Audience — Everyone

TRACK 3 — **ETHICS FOR ENGINEERS & FLOODPLAIN MANAGERS**

1:45 – 4:00pm — **ETHICS for Engineers & Floodplain Managers**

Summary — *ASFPM Ethics course focused on professional ethics. Attendees who would like certificates must sign in at the session. Certificates will be provided by email within 15 days of the conference.*

Target Audience — Everyone