FEMA

Notes for Flood Risk Review (FRR) Meeting
McDowell, Mingo, and Wayne Counties
West Virginia

June 2, 2025, 1:00 pm
Virtual

Welcome and Introductions

- Meeting attendees introduced themselves; please refer to the attendee list at the end of this document.

- The agenda for the meeting was reviewed:
  - Welcome & Introductions
  - Where We Are – Draft Maps
  - Flood Study Update
  - Using Flood Risk Data to Reduce Risk
  - Floodplain Management
  - Discussion

Where We Are - Draft Maps

- The Flood Risk Review (FRR) meeting gives local officials an opportunity to examine draft study results (including new study reaches), discuss how the analysis and mapping have changed since the previous FIRM, and work collaboratively to ensure that the needs of the community and its partners are met.

- Timeline for Studies
  - Current Effective Maps – June 2005 (McDowell), August 2016 (Mingo), September 2016 (Wayne); however, the engineering analysis and data behind the studies is older as not much was updated as part of the current countywide effective studies.
  - Discovery Meeting – August 2017
  - Risk MAP Study Notification – August 2021
  - Flood Risk Review (FRR) Meeting – June 2, 2025
  - Preliminary Maps – Early 2026
  - Community Coordination and Outreach (CCO) Meeting - ~30 days following Preliminary Maps
  - Appeal Period – Summer 2026
  - FEMA issues Letter of Final Determination (LFD) – Early 2027
  - Final Maps Become Effective – 6 Months after LFD

Flood Study Update

- The forthcoming Preliminary FIRMs, FIS, and associated products will follow a new format. Discussed primary FIRM features and symbology, such as definition of the regulatory 1% annual chance flood hazard and different zone designations, such as Zone AE and Zone A.

- Study Overview
  - Projects results in updated modeling and mapping, including GIS-based regulatory products (updated FIRMs, GIS database, FIS report).
  - All effective Zone AE streams were restudied in detail as Zone AE and have new floodways and BFEs. All effective Zone A streams were restudied as well, and numerous reaches were extended or added to the 1-square mile drainage area.
  - All streams were studied as 1D, except for Krouts Creek, which was 2D.
  - Floodplains for Ohio River and Tug Fork (Wayne & Mingo) were not updated as part of this study; Tug Fork (McDowell) was updated though.
  - McDowell County has a vertical datum update from NGVD29 to NAVD88 (roughly 0.5').
  - As part of the process, effective Letters of Map Change (LOMCs) are evaluated. LOMRs are evaluated to see if engineering data should be included in the data development. LOMAs are evaluated when issuing preliminary maps to see if they should get revalidated.
    - If new LOMRs are issued between now and when the maps go preliminary, those would have to be evaluated for potential incorporation.
  - Produced non-regulatory flood risk products.

- Study Areas
  - See slides 15-17 for study area maps.
  - McDowell is entirely within Tug Watershed with Tug Fork and Dry Fork as major flooding sources; Tug Fork in McDowell was restudied as part of this study.
  - Mingo is primarily Tug Watershed but includes some portion of Twelvepole and Upper Guyandotte Watersheds; Tug Fork runs along the border with Kentucky and was recently restudied, so was not included as part of this study.
  - Wayne County includes portions of Twelvepole, Tug, Big Sandy, and Raccoon-Symmes watersheds with Twelvepole Creek as the primary flooding source.
  - Utilized high-resolution LiDAR topographic data from 2018-2020.

- Hydrology
  - Primarily USGS regression equations with Bulletin 17C used for gage analysis.
  - Some areas where flow was regulated by dams for R.D. Bailey Lake Dam in Upper Guyandotte watershed, and Beech Fork Dam and East Lynn Dam in Twelvepole watershed.
  - Rain-on-grid in HECRAS for 2D analysis for Krouts Creek.
  - Hydrology report details study methods & results.

- Hydraulics
  - "Zone A" or "base level" or "approximate" study is typically performed for areas of less development or less potential development.
  - "Zone AE" or "detailed" study is typically performed for areas of more development or more potential development.
  - For both, there are 6 flood frequencies that are analyzed in the model – the 10-, 4-, 2-, 1-, 0.2- and 1% plus events. The 1% plus is the 1% with 1 standard deviation.
  - All streams were studied as 1D except Krouts Creek, which was studied as 2D.
    - *Kevin (WVEMD) asked about how the 2D model determines when the ground and WSELs are changing, and if the graphic (slide 23) is showing from the 1-year to the 100-year as it changes.*
      - *Ben (Compass) explained that the ground level isn't changing, but the WSEL is changing over time as unsteady flow as the hydrograph runs through the model, going from the start of the storm when the flow is lower, then as the storm progressed with more runoff and accumulation until peak, then begins to decrease at the end. The graphic is showing what happens over time of the 100-year flood with the change in the 100-year water surface elevations as the storm progresses.*
    - *Jimmy Gianato (Town of Kimball) noted they saw significant rise in elevations during the February flooding and stream channels changed significantly with some going from 10-12 feet to 2 feet and a lot of sediment deposited by the storm leaving streams level with the roads in a lot of places, as well as a lot of bank scour. Jimmy asked if the data for this study was all prior to the February event.*
      - *Ben (Compass) noted that this data would reflect the time that the LiDAR was captured (2018-2020) and the survey was collected (2021-2022), so doesn't reflect the recent physical changes.*
      - *Kevin (WVEMD) mentioned that sometimes the streams will clean themselves out and wash sediment downstream or onto the banks.*

Study Impacts

- Compared to effective FIRMs, there is widening and narrowing of floodplain, which depends on the stream.
- There are a lot of areas where the floodplain was extended upstream beyond the effective floodplain to go to the 1 square mile drainage area.
- For Trace Fork in Mingo County, the effective channel invert is much higher than the study data, which resulted in large decrease in BFEs of 10+ feet.
- On a county-level, there are many changes to the number of buildings being newly mapped in or out of the SFHA.
  - Bob emphasized that it is important for county and community officials to let people know if they are going in or out of the floodplains. There are thousands of houses and businesses being affected.
  - The building counts in the slides are not exact calculated numbers and may include out buildings or dilapidated structures.

- The WV Tech Center will provide more refined numbers later as they look at the imagery and tax records to do a more detailed validation, then results will be republished on the WV Flood Tool.
  - *Aaron (McDowell) noted that unless they're on top of a mountain, can expect to be in a floodplain, especially after the February flood where things have gotten a lot worse, and sediment is not washing away, and some creeks are eye level with roadways. Just trying to make them as safe as possible from flooding.*
  - *Frank (FEMA) highlighted that it's important to consider about how the mapping results come to bear on people in the buildings after the regulatory process. For folks with federally regulated loans, the lender will require flood insurance in amount of outstanding principal balance of loan. After the new maps go effective, lenders notify property owners added to the floodplain and let them know they have 45 days to purchase flood insurance, so it is important for communities to notify folks before then, so it is not a surprise to them.*
  - *Adam (Town of Kimball) asked if they have an outstanding loan, then what will the flood insurance cost?*
    - *Frank (FEMA) - If the loan is significantly less than the replacement cost of the house, the amount the lender is required to charge may be less than required to have, and if it makes a difference between if someone can live in a house and continue to pay versus default, the lender may be willing to negotiate down to minimum coverage.*
  - *Tony (Wanye) asked how communities will know who has been remapped in order to get out in front of this and start notifying people.*
    - *Kurt (WV Tech Center) – We're working on getting draft floodplains published to the WV Flood Tool. The expert view shows the new floodplain draft layers and the effective layers and Changes Since Last FIRM (CSLF) info will be available to get an idea of where floodplains are increasing and decreasing. The WV Tech Center will go through and give a list of people getting mapped in or out or no change; can provide letter templates to all of the communities, and around the time of the preliminary maps is a good time to send the outreach letters.*
    - *Bob (FEMA) – There is help for identifying and notifying, then the final actual contacting is through the communities themselves, but we'll help you along.*

- Flood Risk Dashboards
  - Summary of information; have one for each county and one for each community. Shows % of households in new floodplain, any dams or levees, number of losses and claims paid out, average premium, number of flood insurance policies in force, and structures being mapped in or out.
  - Immediate next steps – review CSLF; it is important to look at the new mapping now. Then later on, review preliminary FIRMs and FIS.
  - What's on the horizon – Community Coordination and Outreach (CCO) Meeting; 90-day appeal-period; Letter of Final Determination.

- FEMA Region 3 CSLF Viewer: https://arcg.is/1GS0T80
  - Zoom into desired area to see CSLF mapping. Blue is where the floodplain remains the same, purple is where the floodplain is decreasing and will no longer have SFHA, and yellow is where the floodplain is increasing and will now have SFHA.
  - There are streams of only increase, which are tributaries not previously mapped. This is where a lot of the increases to buildings in the floodplain are coming from.
  - CSLF is also available in the WV Flood Tool.

Using Flood Risk Data to Identify and Reduce Risk

- FEMA Flood Risk GIS Datasets are non-regulatory products and good tools
  - Flood depth analysis grids – click around and see how deep water is.
  - Water surface elevation grids – click around and get the base flood elevation.
  - Changes Since Last FIRM – shows changes from old to new floodplains.

- Flood risk data can be access by the following platforms:
  - WV Flood Tool: https://www.mapwv.gov/flood/map/
    - Kurt walked through some of the features and layers in the WV Flood Tool, using Town of Kimball as an example. McDowell effective data is in NGVD29, and the new data is in NAVD88 (~0.5' conversion factor).
    - Risk MAP view – Kurt's team is working on updating all the structures and can give a list later on so communities have info to send out letters.
    - Please contact WV Tech Center (Kurt.Donaldson@mail.wvu.edu)with any questions about the WV Flood Tool.
  - FEMA Map Service Center (MSC): https://msc.fema.gov/portal/home
    - This has the effective maps and will have the preliminary maps. Preliminary data part is currently grayed out but will turn black once preliminary maps are out.
  - FEMA National Flood Hazard Layer: https://www.fema.gov/national-flood-hazard-layer-nfhl

- Flood Hazard Mitigation Planning
  - Mingo and Wayne Counties HMP approved August of last year and expires in 2029. Both counties adopted, but some communities still need to adopt by August 14th of this year.
  - McDowell HMP approved August 2022; expires in 2 years on August 9, 2027. All jurisdictions have adopted the plan.
  - *Tony (Wayne) inquired about how communities go about adopting to fulfill requirement.*
    - *Matt (FEMA) responded that the town council would vote on resolution to adopt plan and send to Vivian Wood at WVEMD, then she would forward to FEMA.*
    - *Bob clarified that it is for adopting the Hazard Mitigation Plan, which is on another trajectory from the new maps.*
  - Matt Townsend (matthew.townsend@fema.dhs.gov) can be contacted with any questions regarding the HMPs.

- Using Flood Data to Manage Development
  - Can see what structures are in or out of floodplain, flooding depth, areas of growth, properties with insurance policies.
  - Bill (FEMA) noted that FEMA has some numbers for insurance policies based on national inventory; however, it is challenging right now with data sharing with recent changes in the agency but hoping to be able to start sharing data again in the future and would be able to provide info on a zip code level or for specific addresses.
  - Bill Bradfield (william.b.bradfield@fema.dhs.gov) can be contacted regarding any insurance related inquires.

Floodplain Management

- Flood risk doesn't stop at a line; flood risks go above and beyond what the maps show. Most claims are outside of the SFHA. If outside of the SFHA, rate is going to be a lot cheaper.
- Communities can help by regulating standards and making sure permitting correctly.
- Everyone on call has 2' freeboard ordinance; some WV counties are starting to go up to 3'. freeboard. Costs more at building but saves money over time.
- Set back requirement - try to build as far away from stream as possible.
- June 2016 flood caused a lot of houses to get flooded badly; some people had been mapped outside of the floodplain and dropped their flood insurance.
- Emphasize to people going out of the floodplain that they should still consider keeping flood insurance because it can happen to anyone in WV as one of the most flood prone states. McDowell and Mingo are very flood prone.

- Floodplain Management at Flood Risk Review
  - Take the time to look at the maps now in the WV Flood Tool. Kevin is happy to teach anyone how to use the WV Flood Tool, just let him know.
  - After the LFD letters, it is time to adopt new ordinance, and Kevin can help you write the ordinance for your community to be FEMA compliant and work for your community.
  - When permitting, make sure if people are by a stream, make them aware that new maps are coming out. Encourage them to build higher and further away. Trying to keep development outside of SHA where possible or at least as far back as possible.

- Big Picture
  - Make sure to build it right; it will save property owners more down the road.
  - Betsy (FEMA) noted that if FEMA and the state can do anything to support, they are more than willing to; there are significant changes and will have some unhappy folks in your communities.

Next Steps

- 30-day review and comment period to go through and look at new floodplains – use CSLF and WV Flood Tool.
- Transmit any comments or concerns to FEMA, State, and Compass.
- Please feel free to contact us with any questions.

- Questions, comments, or concerns about the following may be sent to:
  - Draft Flood Hazard Data: Bob Pierson (Robert.Pierson@fema.dhs.gov) and Ben Kaiser (Benjamin.Kaiser@aecom.com)
  - WV Floodplain Management, Ordinance Updates, etc.: Kevin Sneed (Kevin.L.Sneed@wv.gov) and Julie Sears (Julia.R.Sears@wv.gov)
  - WV Flood Tool: Kurt Donaldson (Kurt.Donaldson@mail.wvu.edu)
  - Hazard Mitigation Plans: Matt Townsend (Matthew.Townsend@fema.dhs.gov)
  - Flood Insurance: Bill Bradfield (William.B.Bradfield@fema.dhs.gov)

Attendee List

Name	Community / Agency	Title
Bob Pierson	FEMA Region 3	Project Officer
William Bradfield	FEMA Region 3	Flood Insurance Specialist
Frank Shockey	FEMA Region 3	Risk Analysis Branch Chief
Betsy Ranson	FEMA Region 3	Floodplain Management Specialist
Matthew Townsend	FEMA Region 3	Community Planner
Julie Sears	WVEMD	NFIP CTP Coordinator
Kevin Sneed	WVEMD	CTP Project Officer
Kurt Donaldson	WV GIS Tech Center	WV GIS Tech Center
Sara Lusher	WV GIS Tech Center	WV GIS Tech Center
Shannon Maynard	WV GIS Tech Center	WV GIS Tech Center
Ben Kaiser	Compass	Mapping Partner
Mike Seering	Compass	Mapping Partner
Heather Zhao	Compass	Mapping Partner
Rebecca Starosta	Compass	Mapping Partner
Amy Mindick	ARC	Mapping Partner
Megan Essig	ARC	Mapping Partner
Dwight Otwell	ARC	Mapping Partner
Grace Halterman	ARC	Mapping Partner
Aaron Rutherford	McDowell County	FPA
Jimmy Gianato	Town of Kimball, McDowell County	-
Adam Gianato	Town of Kimball, McDowell County	Mayor
Paul Billups	Town of Ceredo, Wayne County	Mayor
Amanda Starr	Mingo County	FPA
Tony Brown	Wayne County	FPA