



**State of West Virginia
Emergency Management Division**

1700 MacCorkle Avenue, SE, 6th Floor
Charleston, WV 25314
(304) 558-5380 / Fax: (304) 766-2605

G.E. McCabe
Director

Matt Blackwood
Deputy Director

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Mr. Joe Trimboli, MSc GIS-SME
Community Planner/Geographer
Huntington District
U.S. Army Corps of Engineers

SUBJECT: Scope of Practice and Guidelines for site-specific Advisory Flood Height determinations performed by USACE.

Dear Mr. Joe Trimboli,

This letter is to formalize the scope of practice and guidelines for site-specific Advisory Flood Height determinations performed by the USACE in West Virginia.

We appreciate the water surface elevation calculations performed by the USACE Huntington District Office in the past; however, we want to ensure Advisory Flood Height determinations are only performed where required in accordance with established regulations to ensure the most accurate flood model information is presented to the public.

SCOPE OF PRACTICE.

1) The scope of practice for determining site-based Advisory Flood Heights shall be limited to Approximate A Zones and select counties.

a) Site-based Advisory Flood Heights should only be performed for the Approximate A Zones in unstudied areas or for the following counties:

- Braxton County
- Calhoun County
- Clay County
- Gilmer County
- Grant County
- Jackson County
- Lewis County
- Lincoln County
- Marshall County
- Mason County
- Nicholas County
- Webster County
- Wirt County
- Wood County

b) Our office or agent will notify USACE if recently completed model-backed Advisory Flood Heights are published from new studies. A status graphic is periodically updated for model-backed Approximate A Zones.

GUIDELINES

- 1) **Authoritative Sources.** The advisory flood height elevation studies (Preliminary NFHL, Draft NFHL, Advisory Flood Height studies) performed by FEMA and its mapping contractors are the authoritative source for Advisory Flood Height determinations in Approximate A Zone floodplains.
- 2) **Preferred Methodology.** The methodology used for Advisory Flood Height determinations should be HEC-RAS software and models, along with the best available topographic data. Please contact USACE engineers if training is required using the HEC-RAS methodology. It is important to consider sensitivity to boundary conditions, regardless of the selected methodology and provide disclaimers as appropriate.
- 3) **Documentation.** Any advisory determinations made by your office should be submitted to the State NFIP Office and the local floodplain manager on appropriate agency letterhead. The determination letter should not include the statement: "This letter reflects FEMA National Flood Insurance Program standards." Instead, the determination letter should refer to the guidance document being used and context on its limitations and appropriate use.
- 4) **Disclaimer.** All documentation for site-specific Advisory Flood Height determinations shall include the applied methodology and any limitations of the determination.
- 5) **Enhancements.** As new terrain data and regression equations are available, many Advisory Flood Height (AFH) and model-backed Zone As have room to improve. USACE can continue to provide value to West Virginia stakeholders by updating RAS models with more up-to-date or detailed data for site-specific determinations.
- 6) **Terminology.** Refer to Definitions (Section 2.1) of the WV State Model Floodplain Management Ordinance. Base Flood Elevation (BFE) terminology should only apply to the regulatory, detailed flood studies (AE Zones) on FEMA's Flood Insurance Rate Maps (FIRM). Therefore, any oral or written communication with clients should always refer to the water surface elevations determined by the USACE as Advisory Flood Heights for a base flood, or 1% annual chance (100-yr) flood, and not as base flood elevations (BFEs).

- **Advisory Flood Height (AFH)**

The water surface elevation (WSEL), in feet, of the 1% annual chance (100-year) flood at a given location, as determined using hydrology and hydraulics (H&H) analysis and the best available elevation data.

- **Base Flood Elevation (BFE)**

The water surface elevation of the base flood in relation to the datum specified on the County's Flood Insurance Rate Map. For the purposes of this Ordinance, the one hundred (100) year flood or 1% or greater chance of flooding in any given year.

Should you have any questions, please contact me by email at tim.w.keaton@wv.gov or by phone (304) 414-7659.

Sincerely,



Tim Keaton, CFM
NFIP/CTP Coordinator