Department of Geology and Geography ♥ Eberly College of Arts and Sciences

April 25, 2024

Dear Senator Manchin,

I am writing in support of the Pocahontas County Commission's effort to move the services in the existing 911 Dispatch/Emergency Management Office/Emergency Operations Center into a newly constructed facility outside of the floodplain in which it currently sits.

The WV GIS Technical Center and its partners (e.g., State Resiliency Office, State NFIP / Mitigation Offices, FEMA Region III) aggregate flood hazard data to indicate the communities of West Virginia most at risk of riverine flooding. Based on 14 flood risk factors (Table 1) from research funded by an NSF grant, Marlinton is among the most at risk communities in the state. The town of Marlinton, the county seat of Pocahontas County, is exposed to multiple flood sources: bounded on two sides by the Greenbrier River and on a third side by Knapp Creek. With the release of the newly revised 2024 NFIP flood risk maps, Marlinton now has a total of 190 structures in the floodway, of which 176 were moved from the floodplain fringe into the floodway, an increase of 1,157%. In the main metropolitan area of Marlinton between 1st and 4th Avenues, the base flood elevation of the new FEMA flood maps increased nearly two feet, while the floodway zone expanded significantly by 900 ft. This creates a serious concern for life and property safety, as well as emergency planning and response.

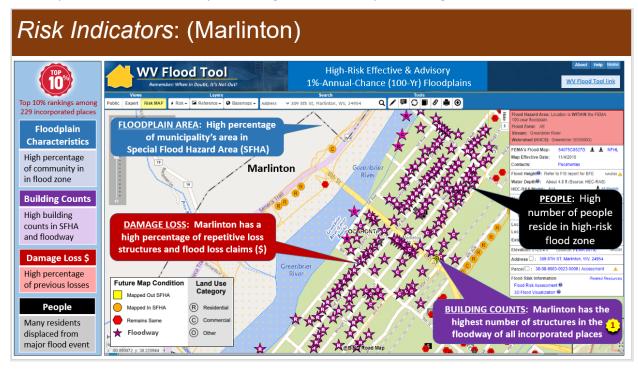
The 911 Dispatch/Emergency Management Office/Emergency Operations Center building, the county's principal operations center, should not be in a vulnerable floodplain location subject to power disruptions and road closures that will significantly reduce the operational capability of the Center. Like the hospital that was relocated from the flood zone in Marlinton to Buckeye after the major 1985 flood, the emergency operations center should be strategically relocated to another area of the county that is not subject to any adverse effects from riverine flooding, including utility (power, communications, water, wastewater, etc.) disruptions and road closures of principal logistical/evacuation/rescue routes. An emergency center that cannot provide critical services to Marlinton is a major public safety issue. In a Flood Stage event of 14.0 ft., six feet below the 11/5/1985 flood of record (20.2 ft.), the floodwaters will enter the current Operations Center. The flooding may be even more severe and unpredictable due to the backwater flooding at the confluence of Knapp Creek and Greenbrier River. It is estimated a repeated record flood stage crest of 20.2 ft. would result in six feet of water inundating the first floor of the current Operations Center. This center has critical equipment in a subgrade basement that will be surrounded by inundated roads and will be difficult to impossible to access during a major flood event.

Based on mapping results the Center's operations are going to be ever more critical in Pocahontas County in general, and Marlinton in specific, from this point onward. Marlinton is now ranked #1 for the highest number of structures in the floodway of all 229 incorporated places in West Virginia (Figure 2). Marlinton has a large percentage of buildings (88%) that were constructed before the first flood maps and to higher standards that mitigate damage. Marlinton ranks 7th of all incorporated places for miles of roadway that will be inundated by a major 1% flood (nearly 23% of all roads in Marlinton will be inundated, including primary roads). Marlinton is also ranked in the Top 10% of WV municipalities for the number of people (86%) who reside in the high-risk flood zone. During the 1985 flood, an estimated 800 people were evacuated along with five flood fatalities. For these reasons, it is likely flooding will disrupt critical community lifelines including safety, water, shelter, health, and energy. During a flood event in Marlinton, significant damage is expected and the response cannot be hampered. We hope you and your congressional colleagues will support Pocahontas County Commission's funding request in full.

**Table 1.** A Cumulative Flood Risk Index of 14 flood factors reveals that Marlinton ranks number one in the State of all 229 municipalities with the highest flood risk score. More information.

Category	Flood Risk Indicator	Value for Marlinton (Red – Top 10%) (Orange – Top 20%)	Indicator Score (0 - 100%)
FLOODPLAIN CHARCTERISTICS	Floodplain Area Ratio	31.5%	89.4%
	Median Flood Depth (Feet)	4.0	81.8%
BUILDING COUNTS	Buildings in High-Risk Floodplains	400	94.7%
	Floodplain to Community Bldg. Ratio	59.4%	98.6%
	Building Count in Floodway	190 (1st Rank)	100.0%
CRITICAL INFRASTRUCTURE	Essential Facilities	5	97.3%
	Inundated Roads Ratio	22.8%	83.7%
COMMUNITY ASSETS	Historical Community Assets	4	86.8%
	Non-Historical Community Assets	13	96.4%
ESTIMATED / PREVIOUS DAMAGE	Substantial Damage Count	16	86.6%
	Total Number of Previous Claims	585	99.5%
	Number of Repetitive Losses	252	99.5%
PEOPLE / SOCIAL	Population % Residing in Floodplain	85.6%	96.9%
	WV Social Vulnerability Index	60.4%	60.4%
Cumulative Flood Index Score (229 municipalities in West Virginia)			100% (1st Rank)

**Figure 2.** Marlinton ranks number one with the largest number of structures located in the main floodway channel of the river subject to the greatest flood depths and highest flood velocities.



Sincerely,

Kurt Donaldon