

Greenbrier County, West Virginia

Community Impact Assessment & Talking Points

CCO Meeting | October 25, 2021

About the Study

History

- This countywide study was initiated in response to the devastating flooding in June 2016, originally planned as a successive effort to the select “PMR” restudy reaches (which would follow an accelerated regulatory update schedule), but now consolidated as a single countywide update.
- The study was motivated by the availability of updated LiDAR and topographic data, as well as updated hydrologic calculations.

Scope and Methodology

- This countywide study incorporates new hydrologic and hydraulic modeling and mapping as well as new ‘QL2’ LiDAR data collected by USGS in late 2016.
- This study updates all effective Zone A areas with revised model-backed data and establishes model-backed Zone A flood hazards in previously unmapped locations that drain at least 1 square mile.

Note: This means Zone A areas were updated using new modeling (to determine new flow rates and flow depths) and new topography (to determine new inundation extent). Note that Zone A is less accurate than Zone AE because automated modeling does not incorporate field-surveyed cross sections.

Outcomes

- All Zone A streams will now have accessible multi-frequency flood flow values in the FIS report and water surface elevations for the 1-percent-annual-chance flood in digital format.
- Compared to effective NFHL, widening and narrowing of the 1-percent-annual-chance floodplain extent was observed throughout the county. Floodways for Meadow River, Dry Creek and Wades Creek mostly follow the current regulatory floodways, although they narrow or widen slightly at a few locations. A floodway were not previously established for Greenbrier River, but is calculated and presented in this study update.
- Most streams experienced both increases and decreases when comparing the computed model WSELs to the current regulatory base flood elevations (BFEs).
- Some SFHA changes are heavily influenced by the redelineations performed for the 2012 Effective FIRMs, which were based on the historic BFEs/profiles (with H&H analyses dating back multiple decades) redrawn using 3-meter DEMs. The most striking example of previous SFHA decreases based on redelineation which are now encountering large SFHA increases (which more closely resemble the historic FIRMs) is in the Town of Rainelle (where it was also observed that the 2012 effective FIRM did not account for all of the bridges in the floodway, for example, the bridge on Sewell Creek).

Meetings and Milestones Timeline	
Date	Meeting/Correspondence Type
Jun 2016	Flood Disaster
Jul 2016	USGS field crews collect High Water Marks
Nov / Dec 2016	New LiDAR Collection
Nov 2017	USGS publishes report on 2016 floods
Jul 2018	FEMA publishes report on 2016 floods
Jan 2019	FEMA notifies Greenbrier County and Incorporated Areas about map update process
May 29, 2019	An FRR Meeting was held for the Post-Disaster PMR. Attendees included representatives from multiple communities.
Feb 3, 2020	Preliminary Maps were issued for the Disaster PMR.
Sep 15, 2020	FRR Meeting will be held for the entire county via webinar.
Sep 30, 2021	Preliminary Maps will be issued for the entire county.
Oct 25, 2021	A CCO Meeting is being held via webinar.

Key Messages for Local Officials

Local officials aren't only decision makers, they are community members who spread messages to the public. Here's what officials need to know about the map update and messages they could share.

Greenbrier County

The number of structures experiencing an increase in flood risk is greater than the number of structures experiencing a decrease. Estimates show that countywide, approximately 725 structures are newly mapped into the SFHA and approximately 320 structures are newly mapped out.

Most of the mapped-in structures are in the Town of Rainelle (+331) and County Unincorporated Areas (+293) (combined 624 of the 725 total). Many of these newly mapped structures are along the Greenbrier River and the Meadow River, and their tributaries.

Most of the mapped-out structures are in the City of White Sulphur Springs and County Unincorporated Areas (295 of 320). In general, these structures are being mapped out because of better topographic data to map the SFHA boundaries.

After the map update, **approximately 331 structures in the Town of Rainelle (or 39% of all the Town's buildings) are expected to be in the SFHA.**

Greenbrier County has 402 NFIP policies in force, meaning **that over 1,200 structures that are in the draft SFHA do not currently have an NFIP policy.** Some of these structures may, however, have policies through private insurance providers.

The insurance gap is especially high in Rainelle and is also high in White Sulphur Springs and the County Unincorporated Areas. Encouraging the purchase of flood insurance should happen NOW in these communities.

Key Messages for Community Members

Talk to an insurance agent to find the right coverage for you. Homeowners and renter's insurance do not typically cover flood damage. That's why it's important to talk to a specialist to learn about your options.

If someone's property is newly identified to be in a higher risk area than before, knowing early can help them take action to financially protect their investments. One cost-saving option to help reduce any potential financial impacts is the Newly Mapped procedure. In the first year after a map change, this option provides the lower-cost Preferred Risk Policy base premium.

Some property owners may find that the flood risk shown for their property is reduced. Even though their lender may no longer require flood insurance, this does not mean that there is no flood risk. This does mean that flood insurance just got cheaper! An insurance agent can easily convert an existing policy to a lower-cost Preferred Risk Policy.

Don't forget, low risk doesn't mean no risk. Anywhere it can rain, it can flood.

Greenbrier County, West Virginia at a Glance

Get to know the community better by taking a closer look at who lives there. Use this as a quick reference to tailor discussion topics to the unique concerns in the room.



Total Population	Median Age	Median HH Income	Poverty Rate
35,155	45.5 (US 37.9)	\$40,200 (US \$31,099)	16% (US 15.1%)



# Housing Units	Median Housing Value	Home Ownership
15,200	\$124,000	72.5%

Source: <https://datausa.io/profile/geo/greenbrier-county-wv>

News & Recent Flood Events

What's happening around the time of your meeting may inadvertently become a topic of discussion. Here are a few things that may be top of mind for meeting attendees.

- [Pandemic Toll Compared to 2016 Floods](#). West Virginia state officials used the destruction that West Virginia residents experienced during the 2016 floods to encourage residents in one of the lowest vaccinated states to get their COVID-19 vaccines after the state ended September with its deadliest monthly toll from the coronavirus pandemic. At a news conference, Justice and retired National Guard Maj. Gen James Hoyer, who leads the state's coronavirus task force, discussed the June 2016 flooding and the work that was done aimed at mitigating future floods. Hoyer said that the same thinking and efforts must be made during the pandemic to avoid more COVID-19 deaths.
- [WVU Experts Seek Community-Driven Answers to Living with Flooding](#). Researchers at West Virginia University have used a localized flooding event to envision how human beings can live with the threat of water invading their living and working spaces. Experts in hydrology and adaptation to climate change used flooding in the Greenbrier County communities of Rainelle and White Sulphur Springs in 2016 to focus on only on what floods did and the damage they caused, but how residents reacted and adjusted how and where they live in relationship to water. Experts said floods should no longer be classified as "natural disasters," but instead are anthropogenic, or human caused, thus managing natural lands and forests is very much a part of the solution because they can mitigate extreme events.
- [Greenbrier County Draws on Relationships Forged During 2016 Floods to Coordinate Vaccination Efforts](#). Members of the Greenbrier County, WV COVID Task Force credit the June 2016 floods with helping them prepare for the coronavirus pandemic. The same group of individuals from government, business, healthcare, and education that came together in the aftermath of the 2016 floods came together to manage the county's COVID-19 response and vaccination efforts.
- [Minor Flooding in Greenbrier County](#). Following a night of heavy rain in March 2021, residents of Greenbrier County experienced rising rivers and streams and more than a few roadways blocked by floodwaters. In western Greenbrier, the Meadow River spilled into the roadway, causing US 60 to close from Charmco to Rupert and later extending all the way to Sam Black. The Sewell Creek at the Rainelle gauge was reported at the highest level since the gauge was

installed. Meadow River and Sewell Creek both crested at around 1:00pm – the river at around 16.5 feet and the creek at 14.57 feet. Flood stage for each is 14 feet.

- [Community Reflects on Five Years Since Deadly 2016 Floods](#). Communities in West Virginia remembered the deadly June 2016 flooding that swept through northern Kanawha County, Fayette County, Nicholas County, Summers County and Greenbrier County on the five-year anniversary in June 2021