

Report on Accomplishments for CTP FY 2023: Community Outreach Mitigation Strategies (COMS)

OVERVIEW OF ACCOMPLISHMENTS:

TASK A: [GLOBAL OUTREACH SERVICES FOR WV FLOOD TOOL]

- Provided statewide global outreach services that processed and integrated new flood and reference GIS layers, tool enhancements, flood risk information, etc. for the WV Flood Tool (www.mapwv.gov/Flood). Services included computer programming, geo-processing, customized mapping, public awareness/outreach, training, and Community Rating System credits for communities.

TASK B: [LIDAR LOMAS: Deliver Technical Support Services for LiDAR LOMAs]

- LiDAR LOMAs were submitted for qualifying structures using FEMA's Online LOMA portal. The WVU GIS Technical Center supported the state floodplain management community with the submission of LiDAR LOMAs when a field elevation survey was not required. This activity included assisting floodplain managers with the online LIDAR LOMA submissions to FEMA for approval.

TASK C: [MAPPING UPGRADES: Performed Building Cluster Analysis for CNMS Risk MAP Discovery of Potential Approximate A Zones for Upgrade to Zone AE Detailed Mapping]

- Evaluated potential Approximate A Zone rivers/streams in the **Kanawha River Basin** for more comprehensive Detailed Flood Studies for clusters of buildings with high flood damage potential.
- View [Report](#) "Zone A Building Cluster Analysis for Kanawha Basin Watersheds, WV"

TASK D: [FLOOD RISK PROFILES: Developed, Verified, And Published Flood Risk Profiles At State, Regional, Community, And Watershed/Stream Levels]

- Published online riverine flood risk maps and reports to the WV Risk Explorer (<https://www.wvfrf.org/wvre/>), a suite of localized risk assessment tools for analysis and visualization.

TASK E: [BUILDING-LEVEL RISK ASSESSMENTS ON WV FLOOD TOOL]

- Updated the building-level risk assessments for **23 counties or 58% (56,641 of 97,380 structures)** of all flood-prone structures in high-risk flood zones. All new building-level risk assessments were updated to the [Risk MAP View](#) of the WV Flood Tool.
- Mapped 329 nonstructural structures mitigated to the WV Flood Tool from the best available USACE Tug Fork Valley Section 202 nonstructural projects for McDowell, Mingo, and Wayne counties.
- Published detailed Building Counts at 8 aggregate scales along with findings, description, rationale, recommendations, and data sources. The Building Counts indicator is one of 27 risk factors identified by the statewide risk assessment.
 - Building count floodplain statistics at the [statewide scale](#).
 - View entire risk assessment [report](#) for buildings located in high-risk flood zones.

TASK F: [RISK COMMUNICATIONS: Communicated SFHA Map Changes to Property Owners]

Created SFHA Change Letter templates and building lists of structures affected by new FEMA restudies.

- Letter Templates: [Mapped-In SFHA Letter Template](#) and [Mapped-Out Letter Template](#) were prepared for Shepherdstown in Jefferson County.
- Building Lists of SFHA Changes provided to communities:
 - [Shepherdstown Mapped-In SFHA Building List](#)
 - [Shepherdstown Mapped-Out SFHA Building List](#)
- 3D Flood Movie: A [3D Flood Movie](#) with [notes](#) of Shepherdstown was created to communicate flood risk to the citizens of Jefferson County.

Task G: [HAZARD MITIGATION PLANS]

- Supported Local Hazard Mitigation Plans with Flood/Landslide Risk Assessment Data.
- Flood and landslide risk assessment data for local hazard mitigation plans were published on new web pages of the [WV Risk Explorer](#).
 - [Flood Risk Data](#)
 - [Landslide Risk Data](#)

TASK H: [LOCAL FLOOD STUDIES]

- Performed Detailed Riverine Flood Impact and Mitigation Studies of Vulnerably Disadvantaged Communities for the following communities:
 - [Greenbrier County](#)
 - [Jefferson County](#)
 - [Logan County](#)
 - [McDowell County](#)

TASK A: [GLOBAL OUTREACH SERVICES FOR WV FLOOD TOOL]

- Provided statewide global outreach services that processed and integrated new flood and reference GIS layers, tool enhancements, flood risk information, etc. for the WV Flood Tool (www.mapwv.gov/Flood). Services included computer programming, geo-processing, customized mapping, public awareness/outreach, training, and Community Rating System credits for communities.

ACTIVITIES SUMMARY:

Global outreach services performed for the twelve-month period from October 1, 2023 to September 30, 2024. TASKS COMPLETED. New effective and advisory flood layers (flood zones, depth/WSEL grids, cross-sections, BFE lines, LOMAs/LOMRs, flood profiles, panel index, FEMA map and HEC-RAS model downloadable links, etc.) were updated to the WV Flood Tool (www.mapwv.gov/flood). Upgraded flood zone query programming logic and cartography to support updated FEMA Flood Risk products for Approximate A Zones that include unlabeled cross-sections and HEC-RAS models. Updated elevation certificates and buyout properties on the WV Flood Tool. Updated reference layers (parcels, addresses, leaf-off imagery, legal boundaries, etc.) on the WV Flood Tool. Updated technical documentation associated with the WV Flood Tool. Updated the contact listing of all the local floodplain managers on the WV Flood Tool. Maintained the WV Flood tool at a high level of performance and availability to include periodic system administrative and cyber security updates. Provided outreach and technical support services for the WV Flood Tool, including presenting at the annual WV Floodplain Management Associations Conference. In June 2024, the WV GIS Technical Center received a Distinguished Service Award from the WV Floodplain Management Association for the contributions of the WV Flood Tool to floodplain management in the state. Eric Hopkins in September 2024 Eric Hopkins provided WV Flood Tool training in Fayette, Hardy, Kanawha, and Monongalia counties.

Desktop Version: <https://www.mapwv.gov/flood>

Mobile Version: <https://www.mapwv.gov/flood/mmap>

Property Search and Report: <https://www.mapwv.gov/property>

Table COMS-A-1. New flood studies updated to WV Flood Tool. Studies include Effective, Draft/Preliminary National Flood Hazard Layers, and Advisory Flood Heights (AFH) submitted for four study areas.

ADVISORY FLOOD HEIGHTS	DRAFT NFHL	PRELIMINARY NFHL	EFFECTIVE NFHL
Wetzel	Jefferson	Hampshire	<i>none</i>
		Pocahontas	

Figure COMS-A-2. Distinguished Service Award from the WV Floodplain Management Association for the contributions of the WV Flood Tool to floodplain management in the state.

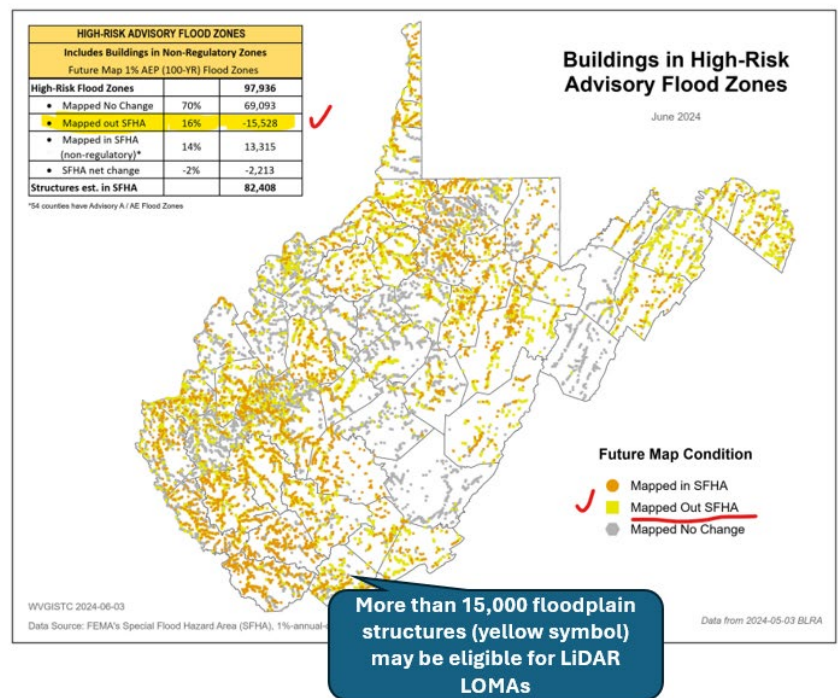
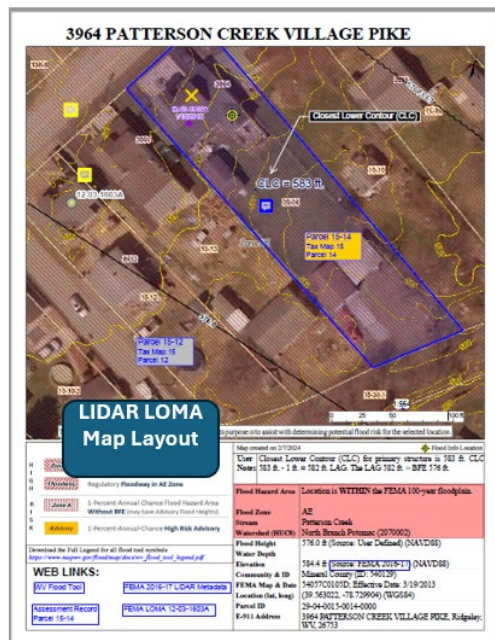


TASK B: [LIDAR LOMAS: Deliver Technical Support Services for LiDAR LOMAs]

- LiDAR LOMAs were submitted for qualifying structures using FEMA's Online LOMA portal. The WVU GIS Technical Center supported the state floodplain management community with the submission of LiDAR LOMAs when a field elevation survey was not required. This activity included assisting floodplain managers with the online LIDAR LOMA submissions to FEMA for approval.

This activity communicated to these constituents how the "mapped out" structures on the RiskMAP View of the WV Flood Tool, symbolized as yellow squares, may qualify for removal from the SFHA. The only information required for an Online LOMA submission to FEMA are a map layout from the Flood Tool and a copy of the deed. The WV Flood Tool's Print Function generates map layouts for the LIDAR submissions using either the contour or point elevation methods.

- LiDAR LOMA resources on the WV Flood Tool. [Instructions](#) | [Overview Slides and Guide](#)
- Over 15,000 structures or 16% of buildings in the high-risk flood zones may be eligible for LiDAR LOMAs. View potential floodplain buildings "mapped out" of SFHA [Graphic](#).
- Example LiDAR LOMA [Map Layout](#) for Mineral County generated from WV Flood Tool Print Function.



TASK C: [MAPPING UPGRADES: Performed Building Cluster Analysis for CNMS Risk MAP Discovery of Potential Approximate A Zones for Upgrade to Zone AE Detailed Mapping]

- Evaluated potential Approximate A Zone rivers/streams in the **Kanawha River Basin** for more comprehensive Detailed Flood Studies for clusters of buildings with high flood damage potential.
- View [Report](#) “Zone A Building Cluster Analysis for Kanawha Basin Watersheds, WV”

Objective: This study evaluated potential Approximate A Zone rivers/streams in the **Kanawha River Basin** for more comprehensive Detailed Flood Studies for clusters of buildings with high flood damage potential. The Kanawha River Basin consists of four watersheds named after their primary rivers: Upper and Lower Kanawha, Coal, and Elk watersheds.

Zone A Candidates for Detailed Studies. Twelve evaluation factors were utilized for ranking clusters of Approximate A Zone structures based on physical building, depth grid, and mapping cost factors. Using spatial cluster and building-level risk analyses, three streams in the **Coal Watershed – West Fork, Marsh Fork, and Crooked Creek** – ranked high per the evaluation factors to be restudied as Zone AE including minimal mapping cost. All these Zone A building clusters are adjacent to existing Zone AE streams. The next stream to be considered in the priority rankings should be the **Pocatalico River** where the Walton Elementary/Middle School is exposed to flooding. The final two Zone A streams to consider for upgrading to Zone AEs should be the **Big Horse Creek** and **Little Birch River**.

Table COMS-C.1. Priority [Ranked Zone A Streams](#) for Upgrading to Zone AE

- TOP RANKING – FIRST TIER
 - **West Fork** (Coal Watershed)
 - **Marsh Fork** (Coal Watershed)
 - **Crooked Creek & Crook Creek Tributary No.2** (Coal Watershed)
- MEDIUM RANKING – SECOND TIER
 - Pocatalico River (Lower Kanawha Watershed)
- LOWER RANKING – THIRD TIER
 - Big Horse Creek (Coal Watershed)
 - Little Birch River (Elk Watershed)

Figure COMS-C.2. Zone A Analysis for [Structure Flood Depths >= 5 ft.](#)

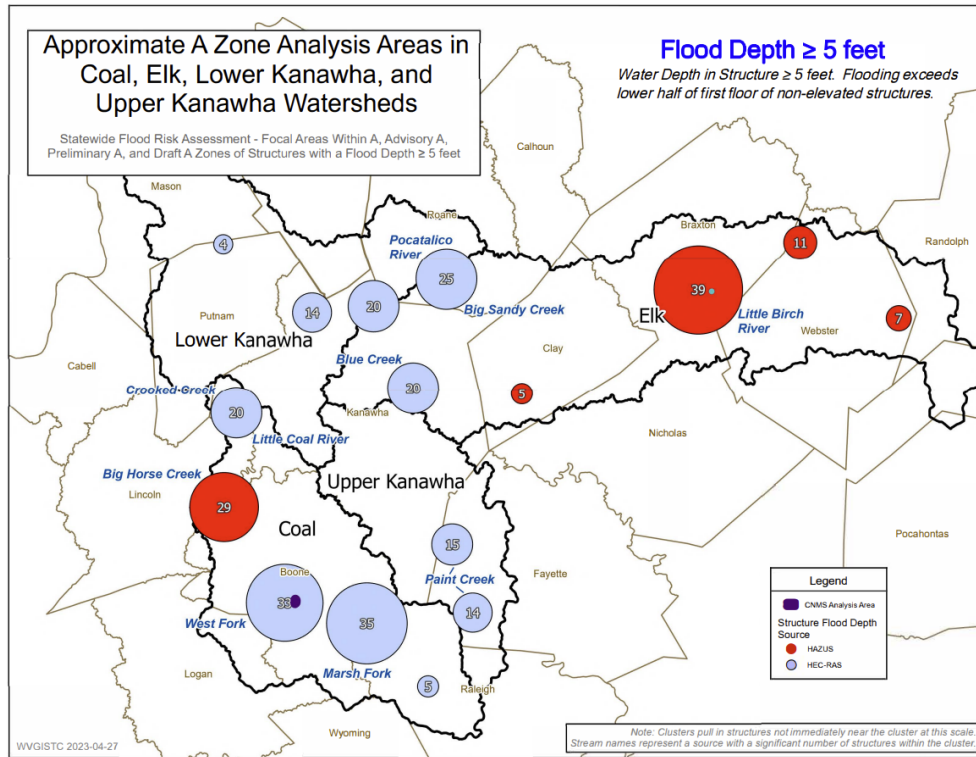


Table COMS-C.3. [Summary table](#) of ranked Zone A cluster analysis rivers/streams according to evaluation factors.

Rank	1	2	3	4	5	6
BUILDING COUNT	<i>Marsh Fork</i> 31	<i>Little Birch River</i> 28	<i>West Fork</i> 21	<i>Big Horse Creek</i> 20	<i>Paint Creek</i> 18	<i>Blue Creek</i> 17
BUILDING DOLLAR EXPOSURE	<i>Pocatalico River</i> \$6.74M	<i>Little Birch River</i> \$1.61M	<i>Marsh Fork</i> \$1.45M	<i>Elk River</i> \$1.18M	<i>Big Horse Creek</i> \$778K	<i>West Fork</i> \$682K
BUILDING DAMAGE LOSS	<i>Pocatalico River</i> \$867K	<i>Little Birch River</i> \$683K	<i>West Fork</i> \$460K	<i>Marsh Fork</i> \$415K	<i>Big Horse Creek</i> \$264K	<i>Blue Creek</i> \$238K
DAMAGE $\geq 50\%$	<i>West Fork</i> 20	<i>Marsh Fork</i> 17	<i>Little Birch River</i> 14	<i>Pocatalico River*</i> 7	<i>Big Horse Creek*</i> 7	<i>Blue Creek</i> 7
BUILDING DENSITY per mile	<i>West Fork</i> 22.1	<i>Marsh Fork</i> 14.1	<i>Crooked Creek</i> 11.5	<i>Little Birch River</i> 4.7	<i>Pocatalico River</i> 4.0	<i>Big Horse Creek</i> 3.6
Zone AE Cost per mile	<i>Crooked Creek</i> \$634	<i>West Fork</i> \$2,375	<i>Marsh Fork</i> \$5,500	<i>Pocatalico River</i> \$8,200	<i>Big Horse Creek</i> \$13,750	<i>Little Birch River</i> \$14,975

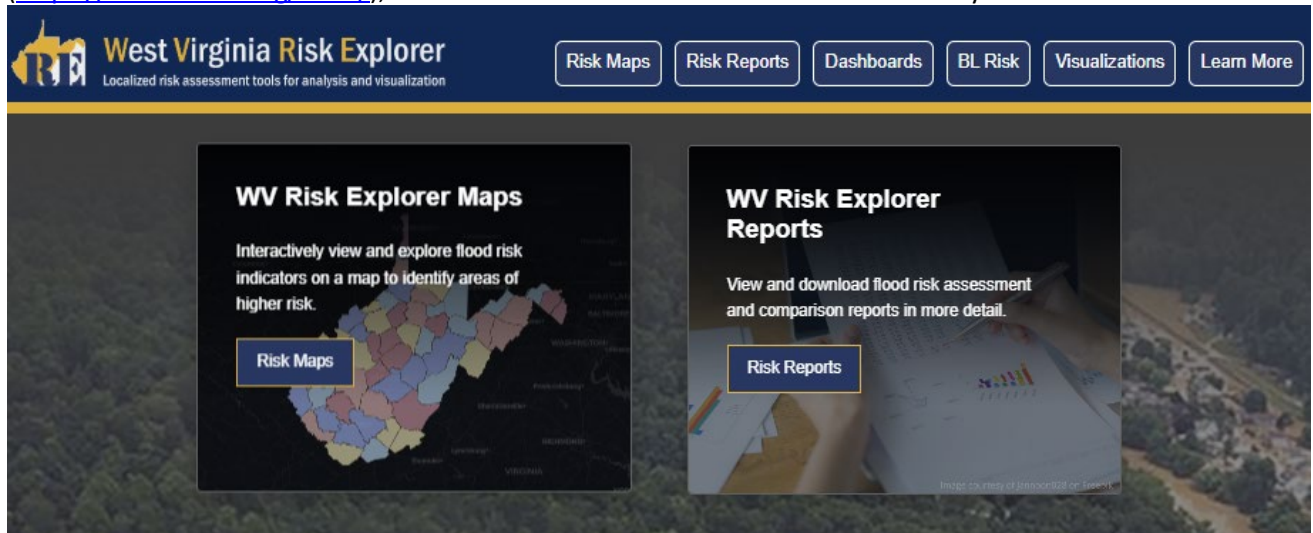
**Pocatalico River, Big Horse Creek, Blue Creek, and Paint Creek all have 7 structures with damage $\geq 50\%$*

Red stream names indicate less accurate HAZUS depth grids

TASK D: [FLOOD RISK PROFILES: Developed, Verified, And Published Flood Risk Profiles At State, Regional, Community, And Watershed/Stream Levels]

- Published online riverine flood risk maps and reports to the WV Risk Explorer (<https://www.wvfrf.org/wvre/>), a suite of localized risk assessment tools for analysis and visualization.

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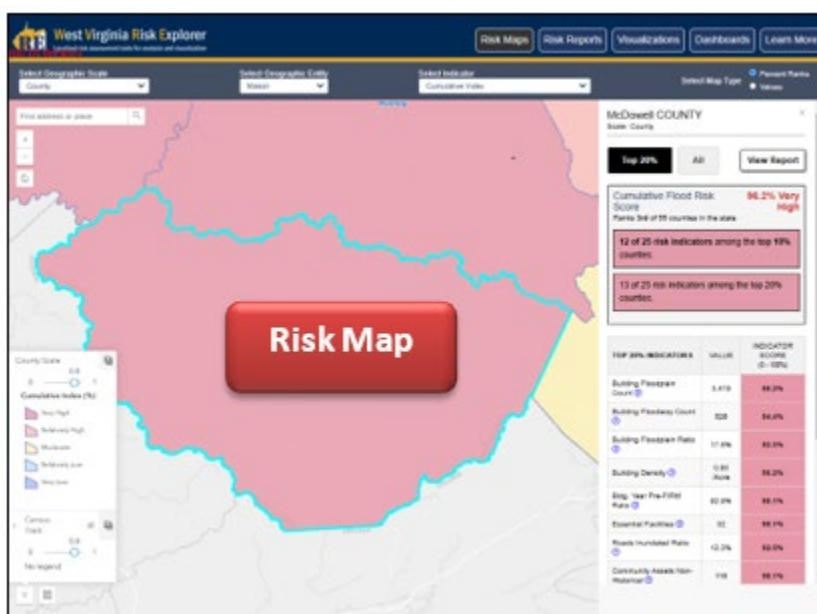
For exploring risk, developed online interactive riverine **Risk Maps** and **Risk Reports** for eight aggregate or geographic scale levels:

RISK MAPS	RISK REPORTS (examples)
Statewide 11 Regional Councils 55 Counties 284 Communities 55 Unincorporated Areas 229 Incorporated Places 33 Watersheds 156 Named Streams (Top 2%)	Statewide 11 Regional Councils 55 Counties 284 Communities 55 Unincorporated Areas 229 Incorporated Places 33 Watersheds 156 Named Streams (Top 2%)

Depending on the scales of analysis, users can explore property flood risk data for the following purposes:

- Validating floodplain management practices at the **incorporated/unincorporated** or **community** scales
- Exploring risk assessments and mitigation actions at the **community** level
- Hazard mitigation planning at the **county** or **regional** scales
- Resiliency planning at the **statewide** scale
- Collecting information for FEMA's Risk MAP discovery at the **watershed** scale
- Researching loss of property and life at the **river/stream** scale

Because certain risk indicators of the **Communities scale follow a bimodal distribution, the 284 Communities are subdivided into 55 Unincorporated Areas and 229 Incorporated Places for more detailed analysis of scales. Of the 284 unincorporated/incorporated communities in West Virginia, 266 or 94% of these communities have mapped Special Flood Hazard Areas (SFHA) or high-risk floodplains.



Flood Risk Index Scores for McDowell County

Notes: A Cumulative Flood Risk Index of 25 flood factors reveals that McDowell County ranks 3rd of 55 counties in the state score of 96.2%. Below are all 25 flood risk indicators used in the risk index with the indicator scores and rankings.

FLOOD RISK INDICATOR	VALUE FOR MCDOWELL	INDICATOR SCORE (0 - 100%)	INDICATOR RATING
Floodplain Area	4,378 Acres	11.1%	Very Low
Floodplain Length	344.8 Miles	70.3%	Relatively High
Flood Declared Disasters	19	79.0%	Relatively High
Flood Depth Median	2.1 Ft	44.4%	Moderate
Floodplain Characteristics Index, 23rd		59.2%	Moderate
Building Floodplain Count	3,479	96.2%	VERY HIGH
Building Floodway Count	528	94.4%	VERY HIGH
Building Floodplain Ratio	17.0%	92.5%	VERY HIGH
Building Density	0.80 /Acre	96.2%	VERY HIGH
Building Exposure Index, 2nd		98.1%	VERY HIGH
Building Median Value	\$14,000	0.0%	Very Low
Bldg. Mobile Homes Ratio	30.2%	75.0%	Relatively High
Bldg. Subgrade Basements Ratio	28.1%	72.2%	Relatively High
Building 1-Story Ratio	80.9%	37.0%	Relatively Low
Bldg. Year Pre-FIRM Ratio	92.9%	98.1%	VERY HIGH
Bldg. Year Minus Rated Post-FIRM Ratio	2.3%	11.1%	Very Low
Building Characteristics Index, 23th		48.1%	Moderate
Essential Facilities	32	98.1%	VERY HIGH
Roads Inundated Ratio	12.3%	92.5%	VERY HIGH
Critical Infrastructure Index, 3rd		94.4%	VERY HIGH
Community Assets	14	81.1%	Relatively High
Community Assets	115	98.1%	VERY HIGH
Bldg. S...	228	88.8%	Very High
Bldg. S...	6.5%	55.5%	Moderate
Bldg. Previous Damage Claims	1,049	90.7%	VERY HIGH
Bldg. Repetitive Loss Structures	168	72.2%	Relatively High
Building Damage Loss Index, 8th		87.0%	Very High
Population in Floodplain Ratio	45.0%	100.0%	VERY HIGH
Population Displaced Ratio	30.4%	100.0%	VERY HIGH
WV Social Vulnerability Index	-	100.0%	VERY HIGH
People / Social Vulnerabilities Index, 1st		100.0%	VERY HIGH
RISK INDEX		96.2%	VERY HIGH

Risk Index Legend

VERY HIGH: 90% - 100%	Very High: 80% - 100%	Relatively High: 50% - 79.9%	Very Low: 0% - 19.9%
Moderate: 40% - 59.9%	Relatively Low: 20% - 39.9%		

[Task E] Update the statewide Building-Level Risk Assessments (BLRA) on the WV Flood Tool's RiskMAP View from new data sources, (e.g., Flood Studies, TaxAssessment building characteristics as structure values, and USACE Section 202 Mitigated Structures).

- Updated the building-level risk assessments for **23 counties or 58% (56,641 of 97,380 structures)** of all flood-prone structures in high-risk flood zones. All new building-level risk assessments were updated to the [Risk MAP View](#) of the WV Flood Tool.

Table COMS-E.1. Counties in which inventoried floodplain buildings and risk assessments were conducted

County	PDC	BIE	BLRA	Building Count
Barbour County	7	2024	2023	813
Berkeley County	9	2025	2025	827
Boone County	3	2023	2024	3926
Braxton County	7	2025	2024	824
Brooke County	11	2022	2023	1101
Cabell County	2	2023	2024	3377
Calhoun County	5	2023	2023	623
Clay County	3	2025	2023	1041
Doddridge County	6	2023	2023	769
Fayette County	4	2023	2023	1798
Gilmer County	7	2025	2023	518
Grant County	8	2024	2023	319
Greenbrier County	4	2025	2025	1885
Hampshire County	8	2024	2023	1157
Hancock County	11	2022	2023	548
Hardy County	8	2023	2023	599
Harrison County	6	2024	2024	2117
Jackson County	5	2023	2023	1062
Jefferson County	9	2025	2025	776
Kanawha County	3	2025	2025	14608
Lewis County	7	2024	2023	1073
Lincoln County	2	2025	2023	2705
Logan County	2	2025	2023	5507
Marion County	6	2024	2023	1701
Marshall County	10	2025	2023	1648
Mason County	2	2023	2023	1573
McDowell County	1	2025	2025	3602
Mercer County	1	2023	2023	2553
Mineral County	8	2024	2023	1167
Mingo County	2	2025	2025	3629
Monongalia County	6	2023	2023	1197
Monroe County	1	2023	2023	348
Morgan County	9	2025	2025	645
Nicholas County	4	2025	2023	1000
Ohio County	10	2025	2023	3391

Pendleton County	8	2024	2023	472
Pleasants County	5	2023	2023	448
Pocahontas County	4	2025	2023	984
Preston County	6	2022	2023	756
Putnam County	3	2023	2024	2690
Raleigh County	1	2025	2023	2466
Randolph County	7	2024	2024	1954
Ritchie County	5	2023	2023	522
Roane County	5	2023	2024	1077
Summers County	1	2025	2024	853
Taylor County	6	2022	2023	427
Tucker County	7	2024	2023	625
Tyler County	5	2024	2023	839
Upshur County	7	2023	2023	1432
Wayne County	2	2025	2025	2625
Webster County	4	2025	2023	1124
Wetzel County	10	2024	2024	2129
Wirt County	5	2023	2024	522
Wood County	5	2023	2023	2283
Wyoming County	1	2023	2023	2725
		33	23	97,380

Figure COMS-E.2. Building-Level Flood Risk Assessment Update [Graphic](#)

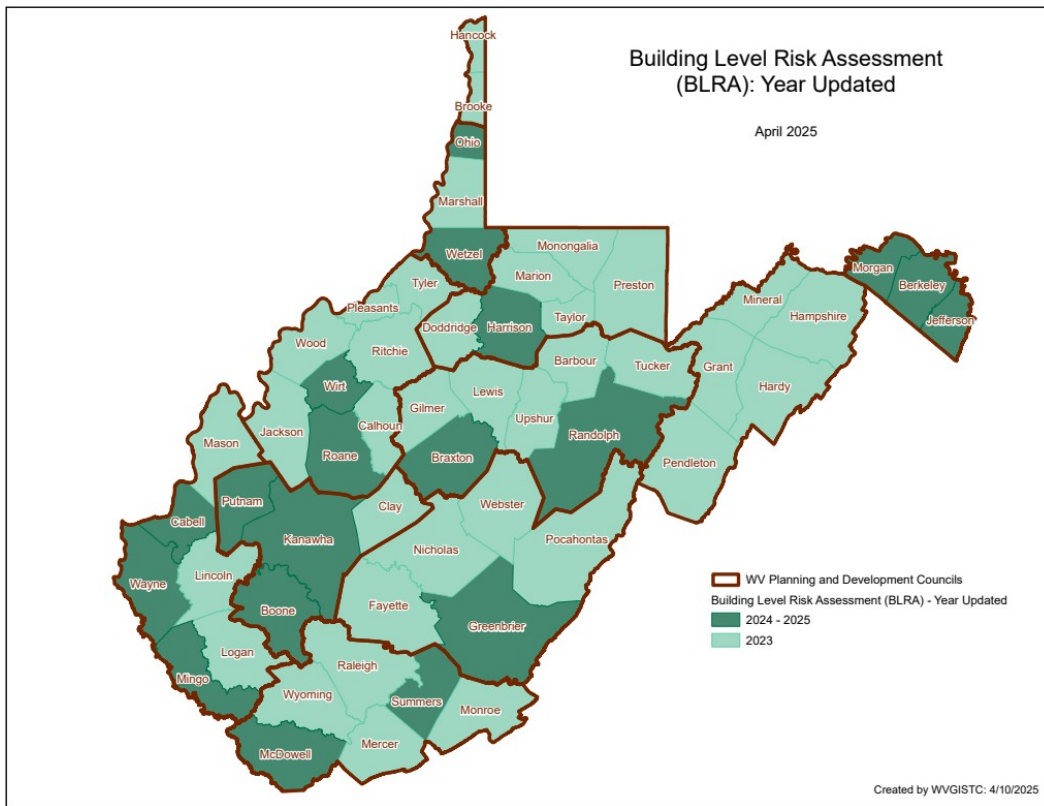
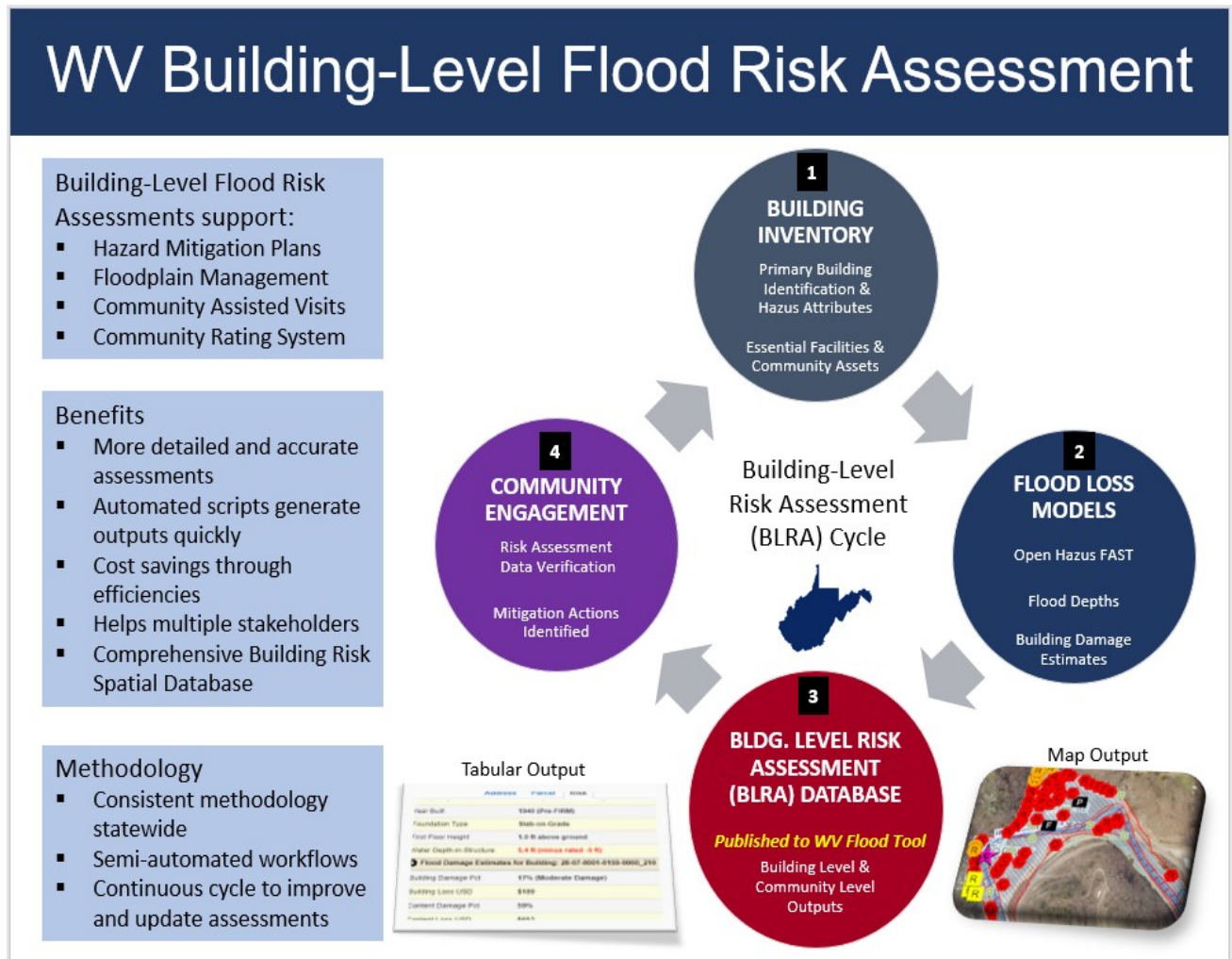


Figure COMS-E.3. Building-Level Flood Risk Assessment [Cycle](#) (BLRA). Major processing steps: (1) Building Inventory, (2) Flood Loss Models, (3) Building- Level Risk Assessment outputs published to WV Flood Tool, and (4) Community Engagement.



[Task E Continued]. Mapped 329 nonstructural mitigated structures to the WV Flood Tool from the best available USACE Tug Fork Valley Section 202 nonstructural projects for McDowell, Mingo, and Wayne Counties. Some of the Section 202 mitigated structures have been torn down and no longer exist. Various flood risk adaptive mitigation measures were mapped for these three counties. Additionally, besides mitigated structures in the high-risk floodplains, the relocation communities of Valley View (Williamson) and Mate Creek (Matewan) outside the Special Flood Hazard Area were mapped to the RiskMAP View of the WV Flood Tool.

Background Information: The McDowell-Mingo-Wayne Counties Non-structural Flood Damage Reduction Projects, initiated in response to the April 1977 flooding in the Tug and Levisa Fork basins, focuses on reducing flood damage through methods like voluntary floodproofing, relocation of structures, floodplain acquisition, and demolition of structures. This flood mitigation program was authorized under Section 202 of the Energy and Water Development Appropriation Act of 1981. As of 2025, only McDowell County is an active project area. More than [\\$284 million](#) was obligated by the federal government for structural and nonstructural mitigation projects associated with the April 1977 Disaster (DR 531), indicating significant financial assistance for this project. Recently the severe flooding in February 2025 in the Tug Fork watershed would have been more costly if not for the prior flood reduction efforts.

- **ACQUIRED PARCELS:** A total of 271 parcels acquired through the Section 202 Mitigation Program were mapped to the WV Flood Tool: McDowell (153), Mingo (100), and Wayne (18).
- **FLOODPROOFED STRUCTURES:** A total of 329 nonstructural mitigated structures were mapped to the WV Flood Tool from the best available Section 202 sources you provided for McDowell, Mingo, and Wayne Counties. Some of the Section 202 mitigated structures have been torn down and no longer exist. Additionally, the relocation communities of Valley View (Williamson) and Mate Creek (Matewan) were mapped.

Figure COMS-E.7. [Mitigated Structures Dashboard](#) of Tug Fork Valley Section 202 structures.

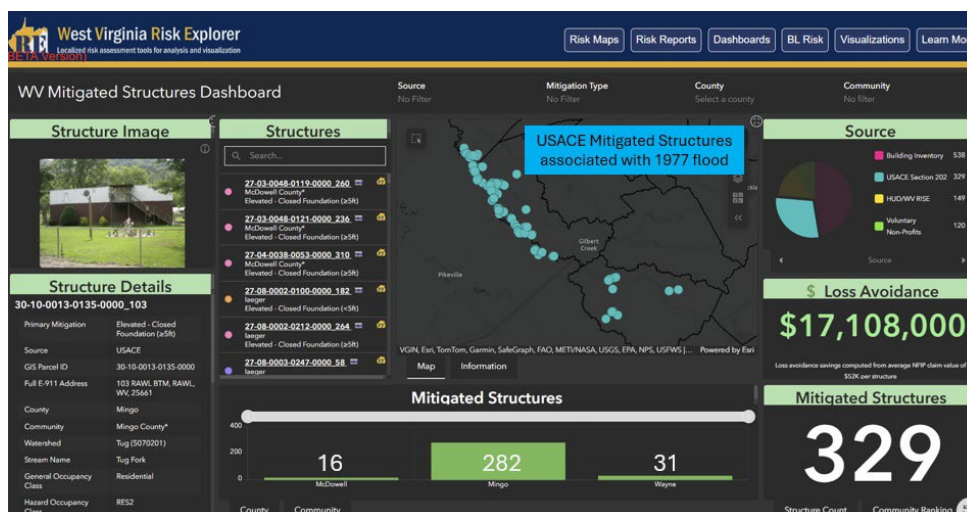


Figure COMS-E.8. [Map View](#) of Mate Creek Relocation Community on WV FloodTool.

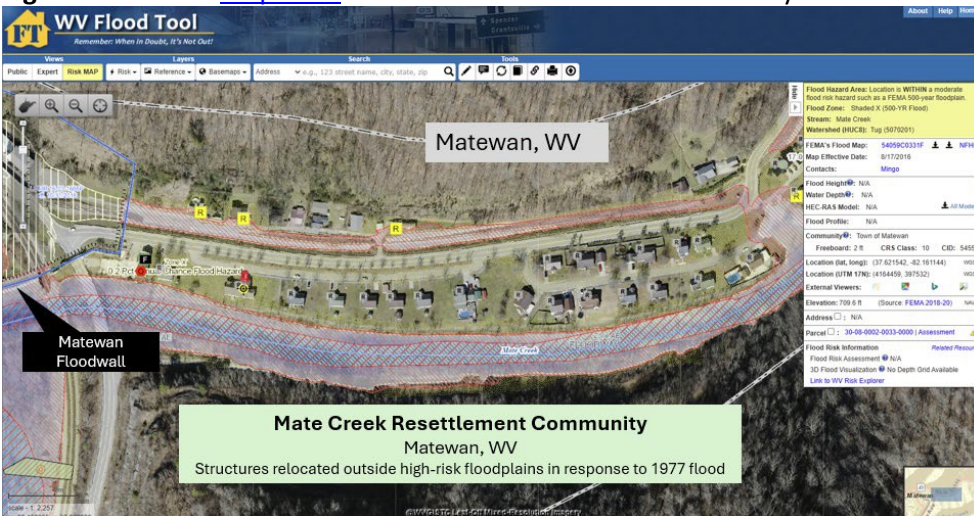
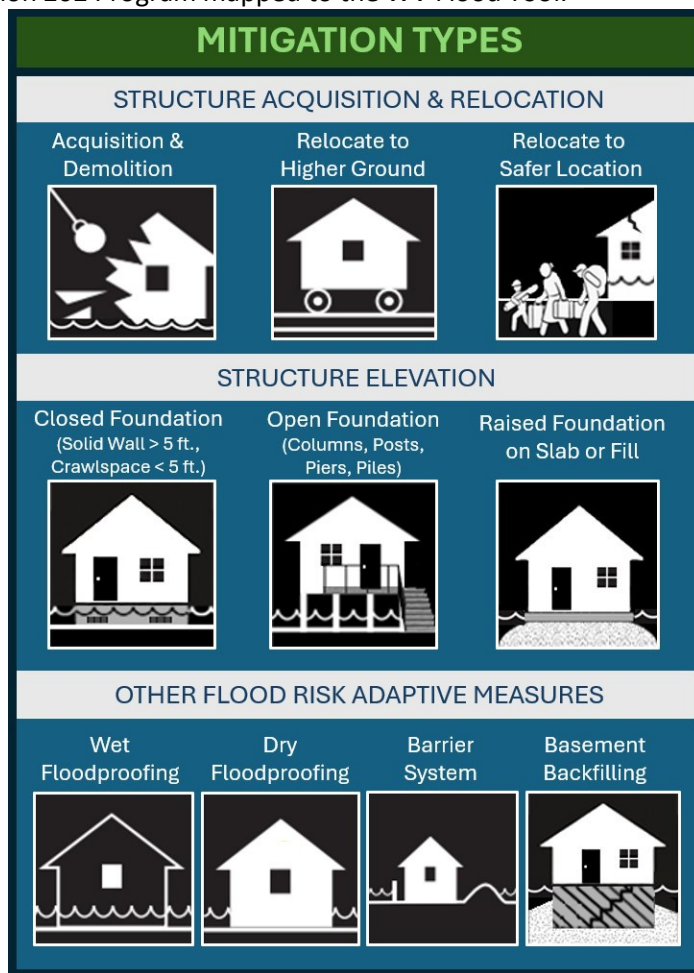


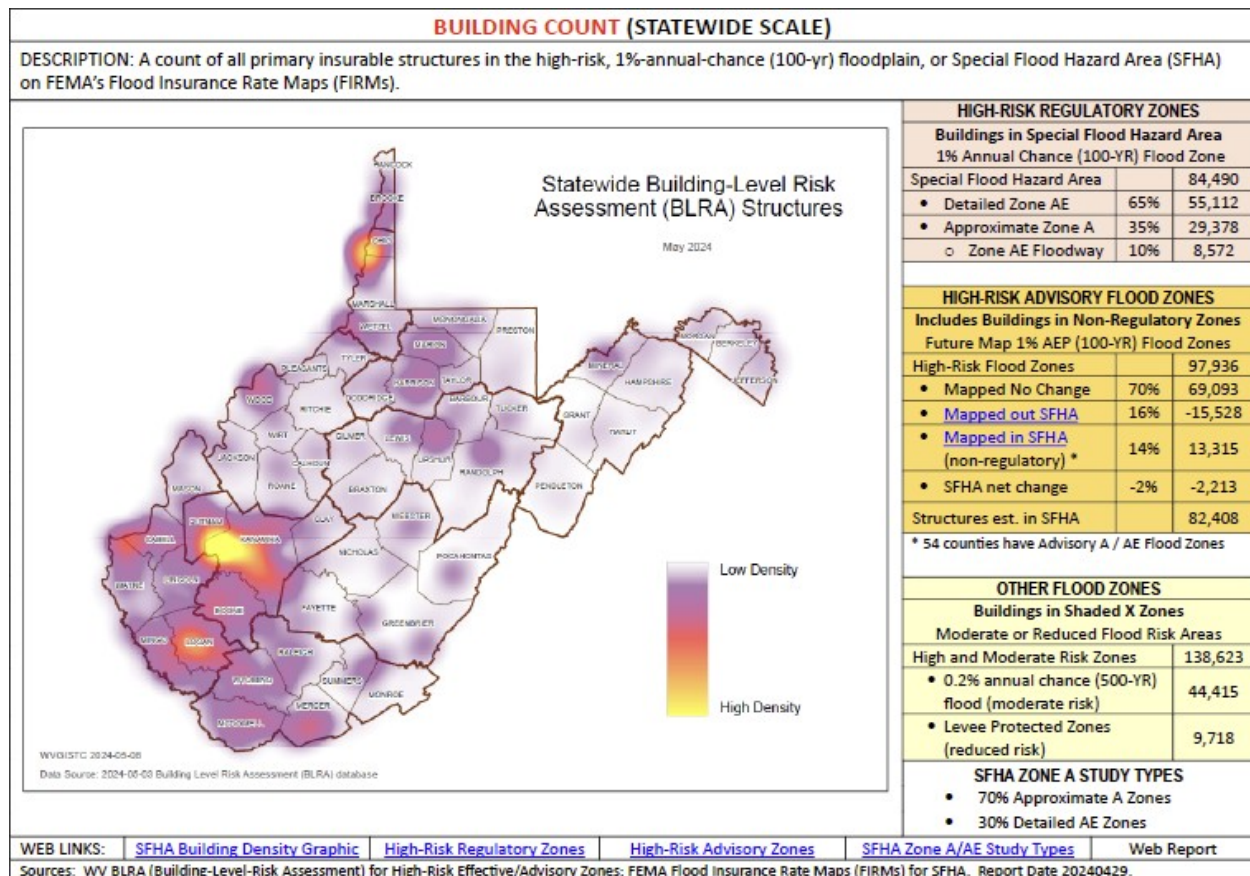
Figure COMS-E.9. Various [nonstructural mitigation measure types](#) for structure were mapped from USACE Section 202 Program mapped to the WV Flood Tool.



[Task E Continued]. Published detailed Building Counts at 8 aggregate scales along with findings, description, rationale, recommendations, and data sources. The Building Counts indicator is one of 27 risk factors identified by the statewide risk assessment.

- Building count floodplain statistics at the [statewide scale](#).
- View entire risk assessment [report](#) for buildings located in high-risk flood zones.

Figure COMS-E.10. Building count floodplain statistics at the [statewide scale](#). View entire risk assessment [report](#) for buildings located in high-risk flood zones.



TASK F: [RISK COMMUNICATIONS: Communicated SFHA Map Changes to Property Owners]
Created SFHA Change Letter templates and building lists of structures affected by new FEMA restudies.

- SFHA Change Letters.
 - Letter Templates: [Mapped-In SFHA Letter Template](#) and [Mapped-Out Letter Template](#) were prepared for Shepherdstown in Jefferson County.
 - Building-Lists: The “SFHA Status” data field of the Building-Level Risk Tool can be filtered to identify buildings mapped in or out of SFHA. The building lists have map links to the WV Flood Tool. Examples for Shepherdstown and Berkeley County Unincorporated:
 - [Shepherdstown Mapped-In SFHA Building List](#)
 - [Shepherdstown Mapped-Out SFHA Building List](#)
 - [Berkeley County Mapped-In SFHA Building List](#)
 - [Berkeley County Mapped-Out SFHA Building List](#)

Figure COMS-F.1. Online [Mapped-in Structures List](#) for Berkely County Unincorporated for communicating updated flood risk to property owners.

West Virginia Risk Explorer
(BETA Version) Localized risk assessment tools for analysis and visualization

Select Geographic Scale: State
Select Geographic Entity: West Virginia

PRIMARY STRUCTURES TABLE
Report Date: March 2025

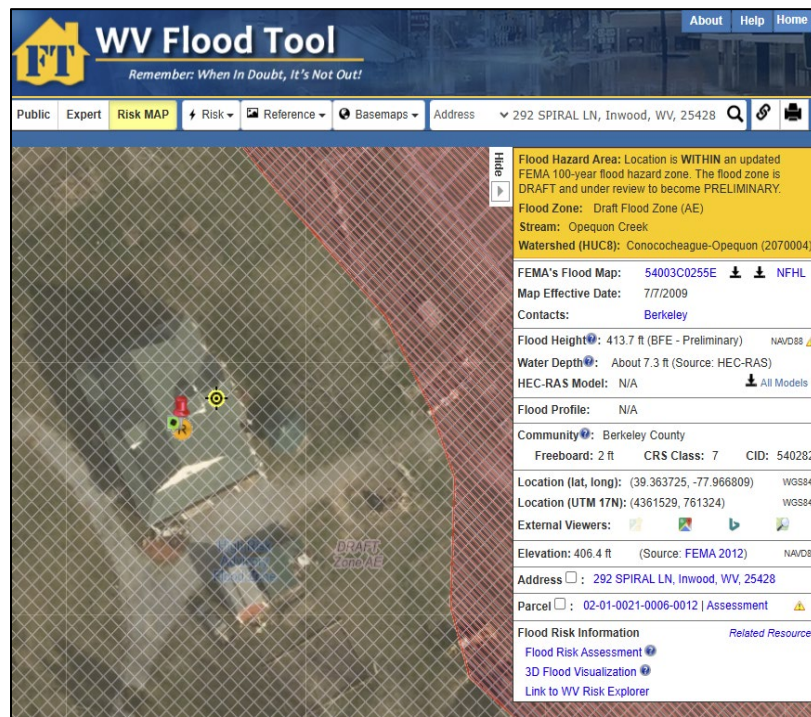
SQL Filter: Future_Map_Condition IN (Mapped in Floodway-Commercial,Mapped In Floodway-Residential,MAPPED IN Floodway-Residential)

SQL Filter: Community_Name = Berkeley County* - Unincorporated Clear all Filters

207 Records Selected. Export to [CSV](#) (2000 record limit)

SPATIAL IDENTIFIERS			FLOOD ZONE	
Building ID	E-911 Address	Flood Tool	Flood Zone	SFHA Status
02-01-0021-0006-0012_292	292 SPIRAL LN, Inwood, WV, 25428		Draft AE	MAPPED IN-Residential
02-01-010A-0005-0000_552	552 EVANS RUN DR, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
02-01-006H-0045-0000_70	70 SHOAL CREEK CT, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
02-01-010A-0006-0000_570	570 EVANS RUN DR, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
02-01-0006-0029-0000_239	239 VINE CIR, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
02-01-010A-0007-0000_582	582 EVANS RUN DR, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
02-01-010A-0004-0000_536	536 EVANS RUN DR, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
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02-01-0006-0029-0000_227	227 VINE CIR, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
02-01-0006-0032-0000_130	130 TRAIN CROSSING DR, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
02-01-0006-0029-0000_207	207 VINE CIR, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
02-01-006D-0002-0000_324	324 HOOK DR, Martinsburg, WV, 25405		Draft AE	MAPPED IN-Residential
02-04-021A-0007-0000_562	562 WIMPYS LN, Hedgesville, WV, 25427		Draft A	MAPPED IN-Residential

Figure COMS-F.2. Mapped-in structure on WV Flood Tool with highest DRAFT flood depth of 7.1 feet at [292 SPIRAL LN, Inwood, WV, 25428](#) indicates significant increase in BFE.



- Supplemental [Jefferson County Risk Assessment](#) Risk Assessment Slides (with [notes](#)) for Jefferson County CCO Meeting. Example graphic slides of Preliminary Map changes for [Harpers Ferry](#), [Shepherdstown](#), and [Jefferson County Unincorporated](#). View [community summary](#) of map changes.

Figure COMS-F.3. Example [map changes](#) on WV Flood Tool between Effective and DRAFT NFHL. FEMA CSLF map layer consumed by WV Flood Tool if available.

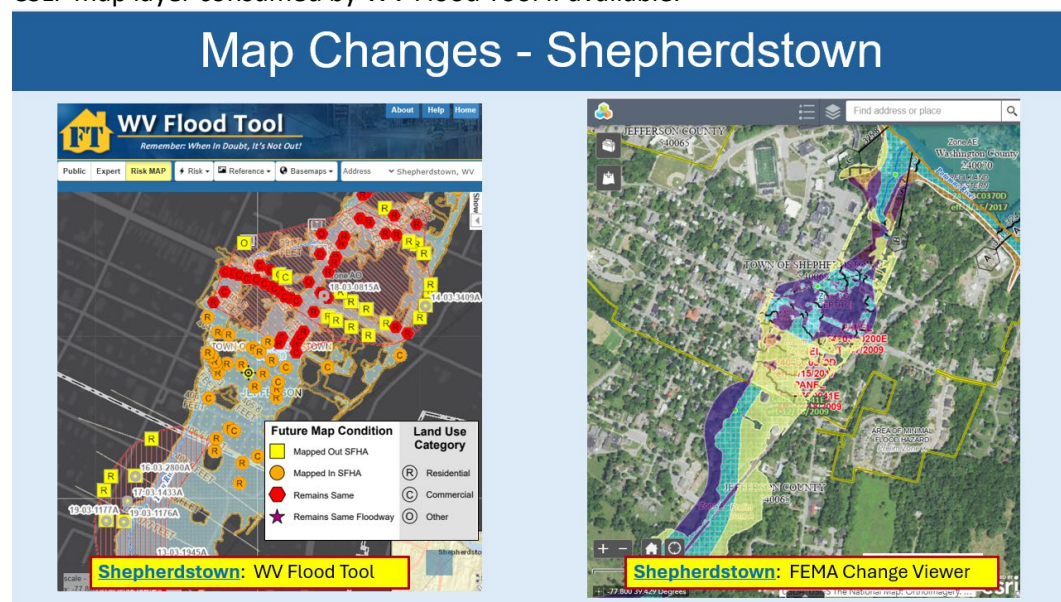
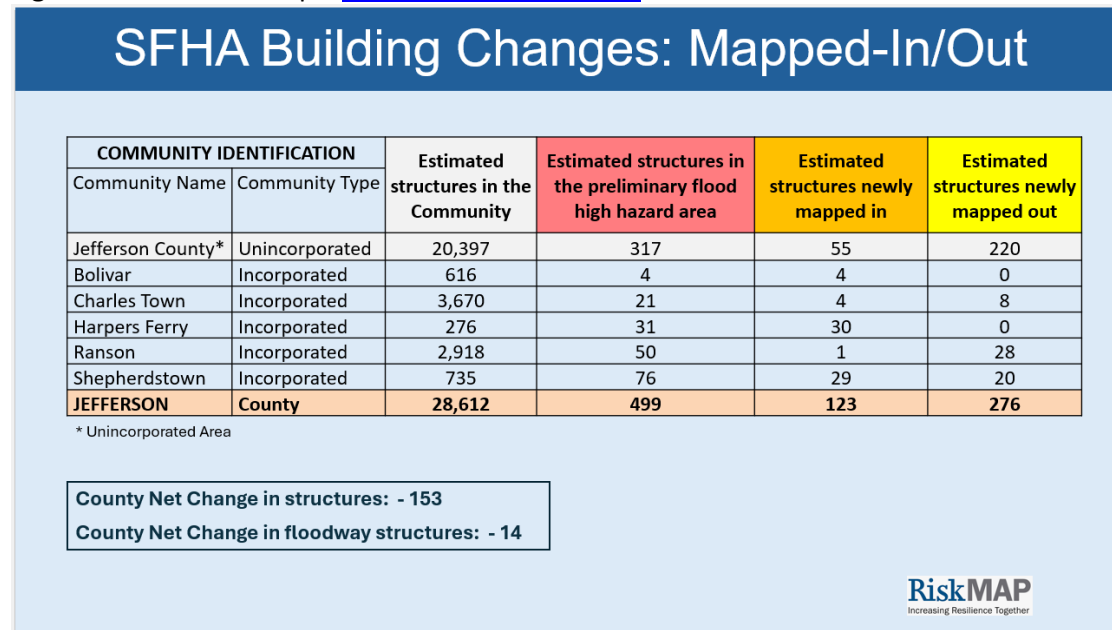


Figure COMS-F.4. Example [community map changes](#) between Effective and DRAFT NFHL



- 3D Flood Movie: A [3D Flood Movie](#) with [notes](#) of Shepherdstown was created to communicate flood risk to the citizens of Jefferson County.

Figure COMS-F.5. [3D Flood Movie](#) created for public to view new map changes for Shepherdstown, WV



Task G: [HAZARD MITIGATION PLANS]

- Supported Local Hazard Mitigation Plans with Flood/Landslide Risk Assessment Data.
- Flood and landslide risk assessment data for local hazard mitigation plans were published on new web pages of the [WV Risk Explorer](#).
 - [Flood Risk Data](#)
 - [Landslide Risk Data](#)

Figure COMS-G.1. [Food Risk Data](#) public access for local hazard mitigation plans

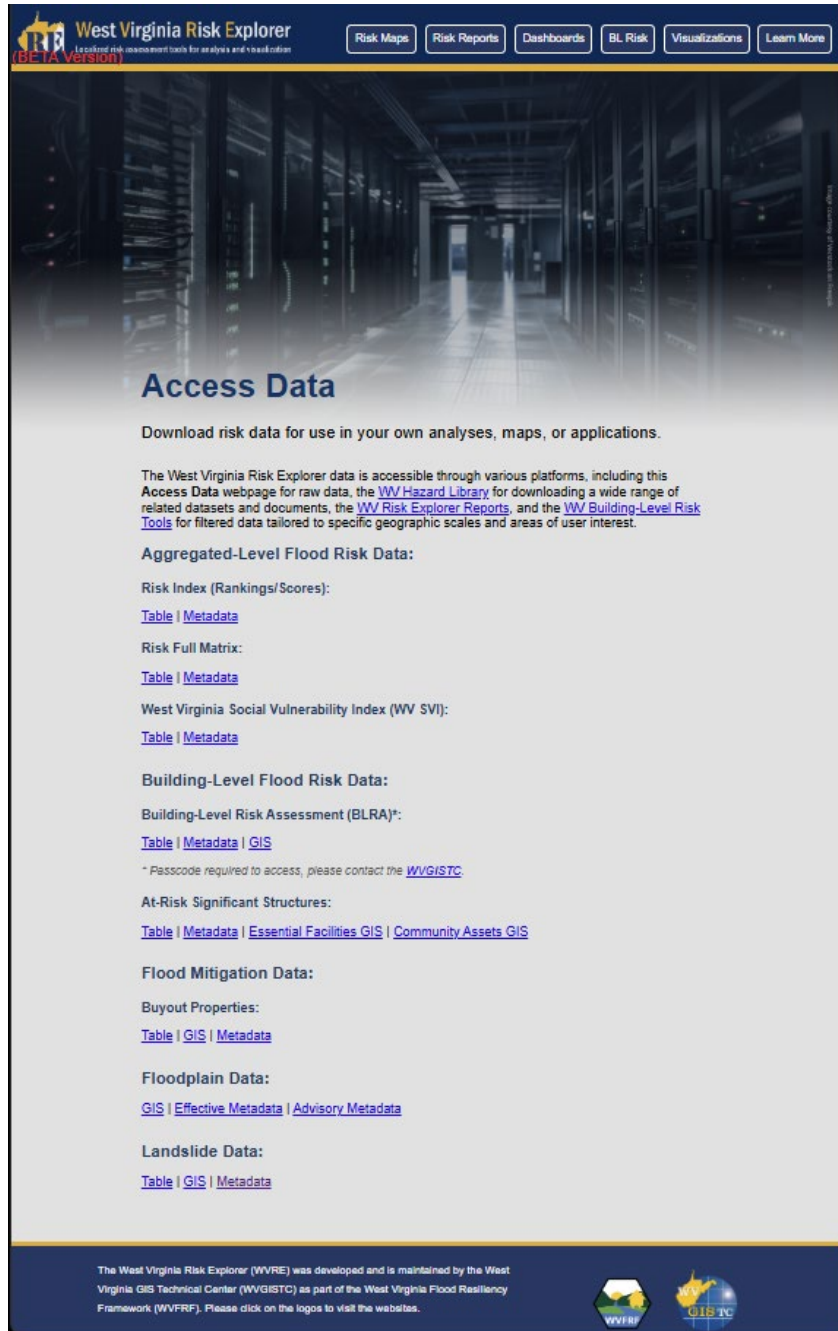
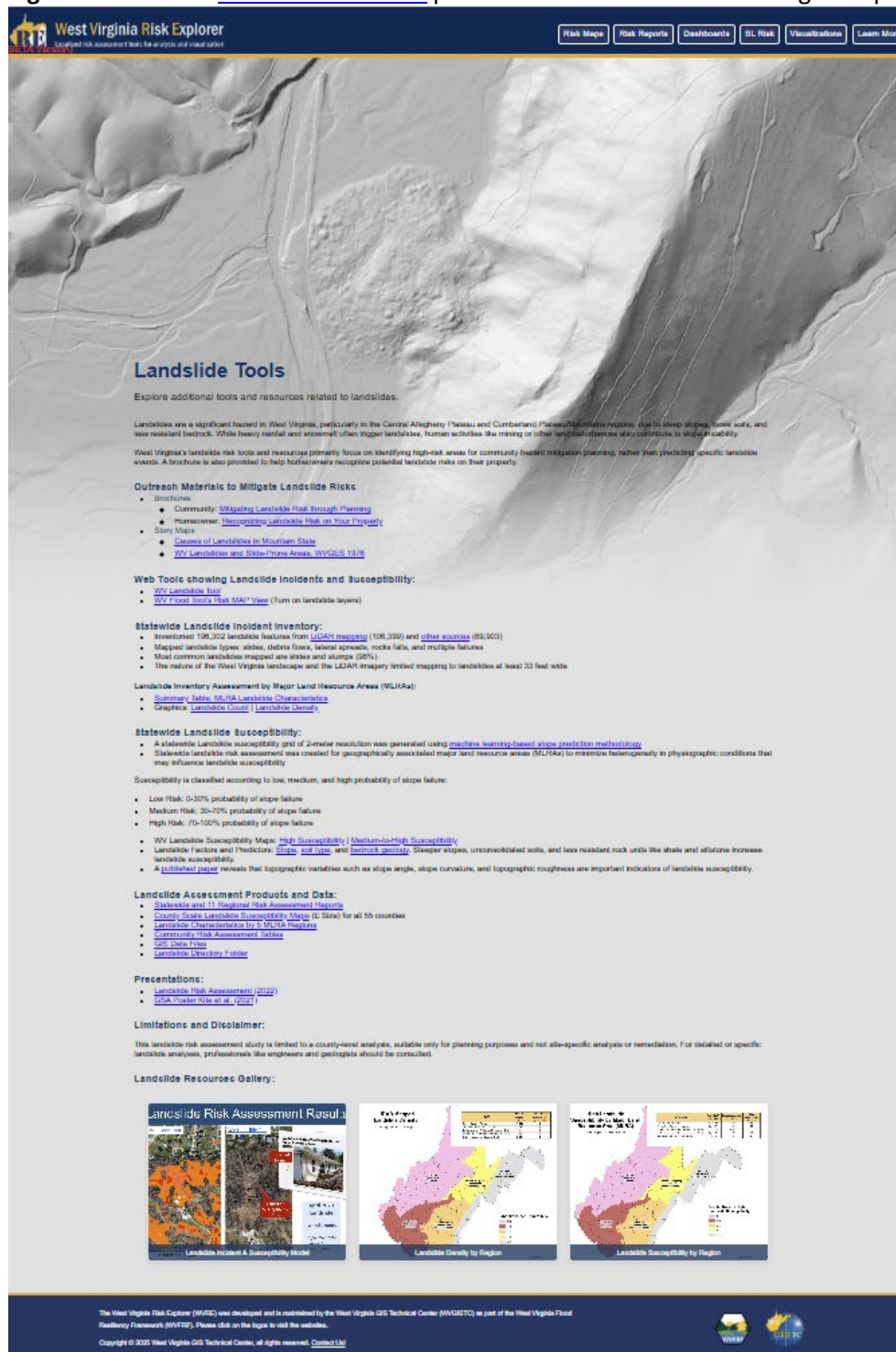


Figure COMS-G.2. [Landslide Risk Data](#) public access for local hazard mitigation plans



TASK H: [LOCAL FLOOD STUDIES]

- Performed Detailed Riverine Flood Impact and Mitigation Studies of Vulnerably Disadvantaged Communities for the following communities:
 - [Greenbrier County](#)
 - [Jefferson County](#)
 - [Logan County](#)
 - [McDowell County](#)

These studies include information or links about rationales and mitigation recommendations of specific flood risk factors affecting floodprone communities. This information is available online on new [WV Risk Explorer](#) tools, a suite of localized risk assessment tools for analysis and visualization.

