ESSENTIAL FACILITIES (Region 9)













Police Station

Fire Station

E-911 Dispatch

School

Hospital

Nursing Home

Description: Essential facilities provide critical services to the community and include police and fire stations, E-911 emergency operations centers, schools (often used as shelters), hospitals, and nursing homes. FEMA identifies these critical facilities as *essential* in its Hazus-MH risk assessment tool. If a <u>critical facility</u> must be in a floodplain then it should be provided a higher level of protection so that it can continue to function and provide services after the flood. Communities should develop emergency plans to continue to provide these services during the flood.

Under Executive Order 11988, Floodplain Management, Federal agencies funding and/or permitting critical facilities are required to avoid the 0.2 percent (500-year) floodplain or protect the facilities to the 0.2 percent chance flood level.

Community Engagement and Verification:

Review the accuracy and completeness of all *active* **essential facilities**. Report any facilities that are missing. Verify the facilities and location using the <u>Table</u> and RiskMAP View of the <u>WV Flood Tool</u>.

Table EF-1. Essential Facility Types and Qualification Criteria for Statewide Risk Assessment

Essential	Police	Fire	Emergency	K-12 School	Hospital	Nursing Home
Facility	Station	Station	Operations Center			
	Police Cars	Fire	E-911 Dispatch	Classrooms	Inpatients	Staffed
Qualification		Trucks	Office	of students		continuously for
				(public or		24-hour medical
				private)		supervision
FEMA	Law	Fire	911 and Dispatch	Government	Medical	Medical Care
Lifeline	Enforcement	Service		Service,	Care (Public	(Long-Term
Component	and Security			Shelter	Health)	Facilities)

Community Lifelines: FEMA recently developed the <u>community lifelines</u> construct to increase effectiveness in disaster operations and better position the Agency to respond to catastrophic incidents. Community lifelines cover seven sectors: Safety and Security; Food, Water, Shelter; Health and Medical; Energy; Communications; Transportation; and Hazardous Material. Essential facilities are identified by six of the FEMA Lifeline Components (Table EF-1). Refer to other state risk assessment reports for additional information on housing, shelters, flood control (dams, levees), highways, railways, bridges, and other hazards (landslides).

Other Related Risk Layers: Primary Structures, Essential Facilities, Transportation, Dams, Levees

Bringing Lifelines into Hazard Mitigation Planning: Slides | Audio | Fact Sheet | BRIC | FEMA Website

Critical Facilities: Definition | Critical Facilities and Higher Standards

Essential Facilities by Type: Seventeen percent (17%) or 2 of the 12 flood-prone communities in Region 9 have essential facilities vulnerable to flooding. The county with the most essential facilities is **Morgan County** (ranked 29th for all counties), while the incorporated town with the highest number of facilities is **Bath** (ranked 46th for all municipalities in State) in Morgan County. Hospitals and nursing homes with immobile patients or residents are particularly vulnerable to a flood disaster. Small towns situated mostly in the floodplain are more challenged than unincorporated areas or larger cities to identify suitable sites that provide a high level of protection from flooding.

Table EF-2. Essential Facilities by Type vulnerable to riverine flood.

COMMUNITY IDENTIFICATION			ESSENTIAL FACILITIES						
CID	Community Name	County	Police Station	Fire Station	911 Center	School	Hospital	Nursing Home	TOTAL
540282	Berkeley County*	BERKELEY	0	0	0	0	0	0	0
545550	Hedgesville	BERKELEY	0	0	0	0	0	0	0
540006	Martinsburg	BERKELEY	0	0	0	0	0	0	0
SUM		BERKELEY	0	0	0	0	0	0	0
540030	Bolivar	JEFFERSON	0	0	0	0	0	0	0
540066	Charles Town	JEFFERSON	0	0	0	0	0	0	0
540067	Harpers Ferry	JEFFERSON	0	0	0	0	0	0	0
540065	Jefferson County*	JEFFERSON	0	0	0	0	0	0	0
540068	Ranson	JEFFERSON	0	0	0	0	0	0	0
540069	Shepherdstown	JEFFERSON	0	0	0	0	0	0	0
SUM		JEFFERSON	0	0	0	0	0	0	0
540005	Bath (Ranked 46 th for all municipalities in State)	MORGAN	0	1	1	0	0	0	2
540144	Morgan County*	MORGAN	1	0	0	1	0	0	2
540252	Paw Paw	MORGAN	0	0	0	0	0	0	0
SUM	Ranked 29th in State	MORGAN	1	1	1	1	0	0	4
TOTAL			1	1	1	1	0	0	4

^{*} Unincorporated Community

^{**} Split Community

Essential Facilities by Flood Zone: There are 4 facilities in the high-risk *effective* and *advisory* 1%-annual-chance (100-yr) floodplains. No essential facilities exist in the Regulatory Floodway or in the moderate-risk 0.2%-annual-chance (500-yr) floodplain.

Table EF-3. Essential Facilities by Flood Zone. What is at risk?

			FLOOD ZONE BREAKDOWN						
COMMUNITY IDENTIFICATION			1%-Annual-Chance (100-yr) Floodplain			0.2% (500-yr) Floodplain	High & Moderate Risk		
CID	Community Name	County	Flood- way	Effective	Advisory	Effective	TOTAL		
540282	Berkeley County*	BERKELEY	0	0	0	0	0		
545550	Hedgesville	BERKELEY	0	0	0	0	0		
540006	Martinsburg	BERKELEY	0	0	0	0	0		
SUM		BERKELEY	0	0	0	0	0		
540030	Bolivar	JEFFERSON	0	0	0	0	0		
540066	Charles Town	JEFFERSON	0	0	0	0	0		
540067	Harpers Ferry	JEFFERSON	0	0	0	0	0		
540065	Jefferson County*	JEFFERSON	0	0	0	0	0		
540068	Ranson	JEFFERSON	0	0	0	0	0		
540069	Shepherdstown	JEFFERSON	0	0	0	0	0		
SUM		JEFFERSON	0	0	0	0	0		
540005	Bath	MORGAN	0	2	0	0	2		
540144	Morgan County*	MORGAN	0	1	1	0	2		
540252	Paw Paw	MORGAN	0	0	0	0	0		
SUM		MORGAN	0	3	1	0	4		
TOTAL			0	3	1	0	4		

^{*} Unincorporated Community

^{**} Split Community

Essential Facilities by Flood Depth: Facilities most vulnerable to a high-risk 1%-annual-chance (100-yr) flood event are displayed below. The flood depth grid and building damage estimates identify which facilities may be subject to the greatest flood damage. Refer to the building-level <u>Table</u> and RiskMAP View of the <u>WV Flood Tool</u> to review base flood depths and damage estimates of facilities.

Table EF-4. Essential Facilities by 1% Flood Depth (> than 3 feet). What is the degree of risk?

Community Name	County	Facility Name	Facility Type	Flood Tool Link	Flood Depth	Building Damage Percent
Morgan County*	MORGAN	Berkeley Springs High School	School	<u>FT</u>	1.4	1.9
Morgan County*	MORGAN	WV State Police Troop 2	Police Department	<u>FT</u>	0.2	0
Bath	MORGAN	Berkeley Springs Volunteer Fire Department	Fire Department	<u>FT</u>	0	0
Bath	MORGAN	Morgan County 911 Center	911 Center	<u>FT</u>	0	0

^{*} Unincorporated Community

Verification - WV Flood Tool Risk MAP: The **WV Flood Tool Risk Map View** should be used to view and verify mapped essential facilities and other risk layers, such as the example below of Bath in Morgan County.

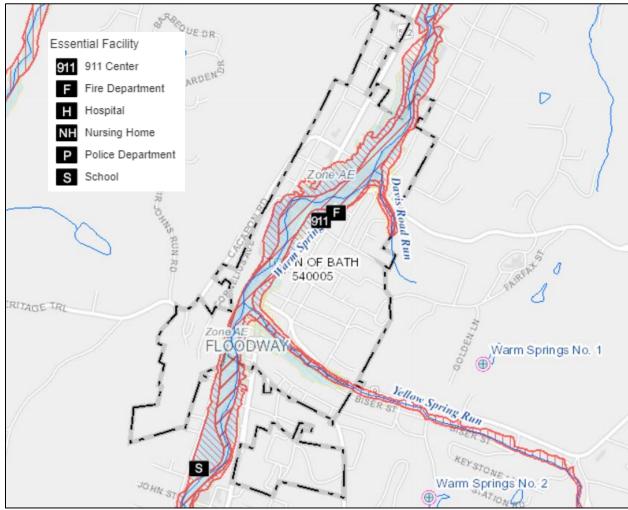


Figure EF-5. Essential Facilities in town of Bath displayed on Risk MAP View of the WV Flood Tool.

WV Flood Tool Map Link: https://www.mapwv.gov/flood/map/?wkid=102100&x=-8707877&y=4811595&l=8&v=2

Verification - Tabular Report: Essential facilities can also be viewed and verified for each community by linking to the risk assessment **tabular report** (Excel spreadsheet). To verify the geographic location of each facility, the Excel table provides map view links. Essential facility data fields include Community Identifiers, Building ID, Address, Facility Type, Occupancy Code, Building Value, Building Value Source, Floodplain, Floodway, and Flood Tool Link.

Table EF-6. Essential Facilities for town of Bath displayed in Tabular Report with map links.

Facility Name	Full Address	Facility Type	Flood Tool Link
Berkeley Springs Volunteer Fire Department	34 North Mercer Street, Berkeley Springs, Morgan, WV, 25411	Fire Department	<u>FT</u>
Morgan County 911 Center	111 Fairfax Street, Berkeley Springs, Morgan, WV, 25411	911 Center	<u>FT</u>

Region 9 Tabular Report Link: https://data.wvgis.wvu.edu/pub/RA/Region9/BLRA/2 EssentialFacility/

Verification with Community-Level Report: A summary report for all communities and regions can be accessed at https://data.wvgis.wvu.edu/pub/RA/State/CL/. See Tables EF-2 and EF-3 for sample outputs.

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