

**ESSENTIAL FACILITIES (Region 9)**

**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 [critical facility](https://www.fema.gov/glossary/critical-facility) 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 [Table](https://data.wvgis.wvu.edu/pub/RA/Region9/BLRA/2_EssentialFacility/) and RiskMAP View of the [WV Flood Tool](https://www.mapwv.gov/flood/map/?wkid=102100&x=-8678646&y=4782404&l=3&v=2).

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

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

**Community Lifelines:** FEMA recently developed the [community lifelines](https://www.fema.gov/emergency-managers/practitioners/lifelines) 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](https://data.wvgis.wvu.edu/pub/RA/_resources/CF/Bringing_Lifelines_into_Hazard_Mitigation_Planning_Presentation.pdf) | [Audio](https://data.wvgis.wvu.edu/pub/RA/_resources/CF/Bringing_Lifelines_into_Hazard_Mitigation_Planning_Webinar.mp4) | [Fact Sheet](https://data.wvgis.wvu.edu/pub/RA/_resources/CF/LifelinesFactSheetandPosterv2_201911.pdf) | [BRIC](https://data.wvgis.wvu.edu/pub/RA/_resources/CF/FEMA_BRIC_Session-4_Community-Lifelines_20200722.pdf) | [FEMA Website](https://www.fema.gov/emergency-managers/practitioners/lifelines)

**Critical Facilities:** [Definition](https://www.fema.gov/glossary/critical-facility) | [Critical Facilities and Higher Standards](https://data.wvgis.wvu.edu/pub/RA/_resources/CF/FPM_1_Page_CriticalFacilities_and_Higher_Standards.pdf)

**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 46th 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?

|  |  |
| --- | --- |
| COMMUNITY IDENTIFICATION | FLOOD ZONE BREAKDOWN |
| 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 [Table](https://data.wvgis.wvu.edu/pub/RA/Region9/BLRA/2_EssentialFacility/) and RiskMAP View of the [WV Flood Tool](https://www.mapwv.gov/flood/map/?wkid=102100&x=-8678701&y=4782388&l=3&v=2) 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 | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8708806.362532185&y=4810533.71985773&l=13&v=2) | 1.4 | 1.9 |
| Morgan County\* | MORGAN  | WV State Police Troop 2 | Police Department | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8709602.457414065&y=4808521.1861674925&l=13&v=2) | 0.2 | 0 |
| Bath | MORGAN  | Berkeley Springs Volunteer Fire Department | Fire Department | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8708116.081390407&y=4811879.084693547&l=13&v=2) | 0 | 0 |
| Bath | MORGAN  | Morgan County 911 Center | 911 Center | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8708170.716996485&y=4811879.81876514&l=13&v=2) | 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](https://www.mapwv.gov/flood/map/?wkid=102100&x=-8707877&y=4811595&l=8&v=2) 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](https://data.wvgis.wvu.edu/pub/RA/Region9/BLRA/2_EssentialFacility/) 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 | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8708116.081390407&y=4811879.084693547&l=13&v=2) |
| Morgan County 911 Center | 111 Fairfax Street, Berkeley Springs, Morgan, WV, 25411 | 911 Center | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8708170.716996485&y=4811879.81876514&l=13&v=2) |

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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