

**ESSENTIAL FACILITIES (Region 10)**

**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/State/CL/Essential_Facility/) and RiskMAP View of the [WV Flood Tool](https://www.mapwv.gov/flood/map/?wkid=102100&x=-8952346&y=4836047&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 | 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, Community Assets, 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:**  Sixty seven percent or 12 of the 18 flood-prone communities in **Region 10** have essential facilities vulnerable to flooding. The county with the most essential facilities is **Marshall County** (ranked 10th for all counties), while the incorporated area with the highest number of facilities is **Wheeling** (ranked 11th for all municipalities in State) that is a split community in Ohio and Marshall counties. 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. What is at risk?

|  |  |
| --- | --- |
| COMMUNITY IDENTIFICATION | ESSENTIAL FACILITIES |
|
| **CID** | **Community Name** | **County** | **Police Station** | **Fire Station** | **911 Center** | **School** | **Hospital** | **Nursing Home** | **TOTAL** |
| 540108 | Benwood | MARSHALL | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 540287 | Cameron | MARSHALL | 0 | 0 | 0 | 1 | 0 | 2 | 3 |
| 540109 | Glen Dale | MARSHALL | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 540107 | Marshall County\* | MARSHALL | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 540110 | Mcmechen | MARSHALL | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| 540111 | Moundsville | MARSHALL | 0 | 2 | 0 | 3 | 0 | 0 | 5 |
| 540152 | Wheeling\*\* | MARSHALL | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *SUM* | **Ranked 10th in State** | **MARSHALL** | **1** | **5** | **0** | **5** | **0** | **2** | **13** |
| 540149 | Ohio County\* | OHIO | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 540150 | Triadelphia | OHIO | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 540151 | Valley Grove | OHIO | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 540094 | West Liberty | OHIO | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 540152 | Wheeling\*\*(Ranked 11th for all municipalities in State) | OHIO | 0 | 2 | 0 | 4 | 0 | 2 | 8 |
| *SUM* |  | **OHIO** | **0** | **4** | **0** | **4** | **0** | **2** | **10** |
| 540256 | Hundred | WETZEL | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 540208 | New Martinsville | WETZEL | 2 | 1 | 0 | 2 | 0 | 1 | 6 |
| 540196 | Paden City\*\* | WETZEL | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 540210 | Pine Grove | WETZEL | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| 540258 | Smithfield | WETZEL | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 540207 | Wetzel County\* | WETZEL | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| *SUM* |  | **WETZEL** | **3** | **4** | **0** | **4** | **0** | **1** | **12** |
| **TOTAL** |   |   | **4** | **13** | **0** | **13** | **0** | **5** | **35** |
| \* Unincorporated Community \*\* Split Community |

**Essential Facilities by Flood Zone:** Five essential facilities are in the Regulatory Floodway, or the main channel of the river or stream where floodwaters are likely the deepest and with the highest velocities. There are 28 facilities in the high-risk *effective* and *advisory* 1%-annual-chance (100-yr) floodplains and two facilities in the moderate-risk 0.2%-annual-chance (500-yr) floodplain.

**Table EF-3.** Essential Facilities by Flood Zone.

|  |  |
| --- | --- |
| COMMUNITY IDENTIFICATION | FLOOD ZONE BREAKDOWN |
| 1%-Annual-Chance(100-yr) Floodplain | 0.2%(500-yr) Floodplain | High & Moderate Risk |
| **CID** | **Community Name** | **County** | **Floodway** | **Effective** | Advisory | Effective | **TOTAL** |
| 540108 | Benwood | MARSHALL | 0 | 2 | 0 | 0 | 2 |
| 540287 | Cameron | MARSHALL | 2 | 1 | 0 | 0 | 3 |
| 540109 | Glen Dale | MARSHALL | 0 | 1 | 0 | 0 | 1 |
| 540107 | Marshall County\* | MARSHALL | 0 | 0 | 0 | 0 | 0 |
| 540110 | Mcmechen | MARSHALL | 0 | 2 | 0 | 0 | 2 |
| 540111 | Moundsville | MARSHALL | 0 | 4 | 0 | 1 | 5 |
| 540152 | Wheeling\*\* | MARSHALL | 0 | 0 | 0 | 0 | 0 |
| *SUM* |  | **MARSHALL** | **2** | **10** | **0** | **1** | **13** |
| 540149 | Ohio County\* | OHIO | 0 | 0 | 0 | 0 | 0 |
| 540150 | Triadelphia | OHIO | 0 | 1 | 0 | 0 | 1 |
| 540151 | Valley Grove | OHIO | 0 | 1 | 0 | 0 | 1 |
| 540094 | West Liberty | OHIO | 0 | 0 | 0 | 0 | 0 |
| 540152 | Wheeling\*\* | OHIO | 1 | 6 | 0 | 1 | 8 |
| *SUM* |  | **OHIO** | **1** | **8** | **0** | **1** | **10** |
| 540256 | Hundred | WETZEL | 0 | 1 | 1 | 0 | 2 |
| 540208 | New Martinsville | WETZEL | 2 | 4 | 0 | 0 | 6 |
| 540196 | Paden City\*\* | WETZEL | 0 | 0 | 0 | 0 | 0 |
| 540210 | Pine Grove | WETZEL | 0 | 2 | 0 | 0 | 2 |
| 540258 | Smithfield | WETZEL | 0 | 0 | 0 | 0 | 0 |
| 540207 | Wetzel County\* | WETZEL | 0 | 2 | 0 | 0 | 2 |
| *SUM* |  | **WETZEL** | **2** | **9** | **1** | **0** | **12** |
| **TOTAL** |   |   | **5** | **27** | **1** | **2** | **35** |

\* 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/State/BL/EssentialFacility/) and RiskMAP View of the [WV Flood Tool](https://www.mapwv.gov/flood/map/?wkid=102100&x=-8958613&y=4879463&l=3&v=2) to review base flood depths and damage estimates of facilities.

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Community Name | County | Facility Name | **Facility Type** | Flood Tool Link | **Flood Depth** | Building Damage Percent |
| Wheeling\*\* | OHIO | Wheeling Middle School | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8986403.19129417&y=4872807.5527708875&l=13&v=2) | 9.3 | 0.0 |
| Wheeling\*\* | OHIO | Wheeling Fire Department Station 5 | **Fire Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8987525.929844689&y=4876584.243201321&l=13&v=2) | 9.1 | 23.2 |
| Benwood | MARSHALL | Benwood Police Department | **Police Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8987247.853645368&y=4868682.893492279&l=13&v=2) | 9.0 | 22.9 |
| Benwood | MARSHALL | Benwood Volunteer Fire Department Incorporated | **Fire Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8987260.200201409&y=4868634.40062969&l=13&v=2) | 8.1 | 20.4 |
| New Martinsville | WETZEL | Magnolia High School | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-9001367.95749335&y=4814665.661150768&l=13&v=2) | 7.8 | 12.6 |
| New Martinsville | WETZEL | Wetzel County Sheriff's Office | **Police Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-9001967.53328764&y=4813869.308693541&l=13&v=2) | 7.8 | 11.8 |
| Wetzel County\* | WETZEL | Long Drain School | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8959491.97946536&y=4816926.47169545&l=13&v=2) | 6.0 | 10.0 |
| New Martinsville | WETZEL | New Martinsville Fire Department Station 218 | **Fire Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-9001958.731032863&y=4814237.486686083&l=13&v=2) | 5.7 | 14.2 |
| Wheeling\*\* | OHIO | Madison Elementary School | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8987216.140948826&y=4876435.371278921&l=13&v=2) | 5.0 | 0.0 |
| New Martinsville | WETZEL | Magnolia High School | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-9001346.423739731&y=4814582.652722551&l=13&v=2) | 4.1 | 9.0 |
| Pine Grove | WETZEL | Valley High School | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8980957.578616213&y=4802782.498798248&l=13&v=2) | 4.0 | 9.0 |
| Wheeling\*\* | OHIO | Ritchie Elementary School | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8986096.446318464&y=4872440.927139323&l=13&v=2) | 2.0 | 5.0 |
| Moundsville | MARSHALL | Moundsville Middle School | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8988636.782367894&y=4854549.650044475&l=13&v=2) | 1.6 | 0.0 |
| Cameron | MARSHALL | Cameron Elementary School | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8968405.367717285&y=4840672.991177574&l=13&v=2) | 1.4 | 1.9 |
| Hundred | WETZEL | Hundred Volunteer Fire Department | **Fire Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8956355.391621634&y=4820177.145450415&l=13&v=2) | 1.3 | 1.8 |
| Cameron | MARSHALL | Cameron Nursing and Rehabilitation Center - AMFM Nursing & Rehab Centers | **Nursing Home** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8969864.279107498&y=4840792.946656293&l=13&v=2) | 1.0 | 0.0 |
| Cameron | MARSHALL | Cameron Nursing and Rehabilitation Center - AMFM Nursing & Rehab Centers | **Nursing Home** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8969807.548802555&y=4840809.182384184&l=13&v=2) | 1.0 | 0.0 |
| New Martinsville | WETZEL | New Martinsville Police Department | **Police Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-9001896.201316416&y=4813716.198372558&l=13&v=2) | 1.0 | 0.0 |
| Wetzel County\* | WETZEL | Jacksonburg Volunteer Fire Department | **Fire Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8977186.065473901&y=4798184.918395263&l=13&v=2) | 1.0 | 0.0 |

\* Unincorporated Community

\*\* Split Community

**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 Wheeling in Ohio County.

**Figure EF-5.** Essential Facilities for city of Wheeling displayed on [Risk MAP View](https://www.mapwv.gov/flood/map/?wkid=102100&x=-8984134&y=4874280&l=7&v=2) of the WV Flood Tool.



WV Flood Tool Map Link: <https://www.mapwv.gov/flood/map/?wkid=102100&x=-8984134&y=4874280&l=7&v=2>

**Verification with Building-Level 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 city of Wheeling displayed in [Tabular Report](https://data.wvgis.wvu.edu/pub/RA/State/BL/EssentialFacility/) with map links.

|  |  |  |  |
| --- | --- | --- | --- |
| Facility Name | Full Address | **Facility Type** | Flood Tool Link |
| Wheeling Middle School | 3500 CHAPLINE ST, WHEELING, WV, 26003 | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8986403.19129417&y=4872807.5527708875&l=13&v=2) |
| Wheeling Fire Department Station 5 | 11 N WABASH ST, WHEELING, WV, 26003 | **Fire Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8987525.929844689&y=4876584.243201321&l=13&v=2) |
| Madison Elementary School | 91 ZANE ST, WHEELING, WV, 26003 | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8987216.140948826&y=4876435.371278921&l=13&v=2) |
| Ritchie Elementary School | 3700 WOOD ST, WHEELING, WV, 26003 | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8986096.446318464&y=4872440.927139323&l=13&v=2) |
| Wheeling Fire Department Station 4 | 3618 JACOB ST, WHEELING, WV, 26003 | **Fire Station** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8986227.87033194&y=4872625.133072759&l=13&v=2) |
| Woodsdale Elementary School | 1 BETHANY PKE, WHEELING, WV, 26003 | **School** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8982624.427245501&y=4877476.352151273&l=13&v=2) |
| Elmhurst-The House-Friendship | 1228 NATIONAL RD, WHEELING, WV, 26003 | **Nursing Home** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8981640.25374247&y=4876475.514849602&l=13&v=2) |
| Welty Home for the Aged Inc | 21 WASHINGTON AVE, WHEELING, WV, 26003 | **Nursing Home** | [FT](https://mapwv.gov/flood/map/?wkid=102100&x=-8981665.42185482&y=4876323.632032526&l=13&v=2) |

Region 10 Tabular Report Link: [data.wvgis.wvu.edu - /pub/RA/State/BL/EssentialFacility/](https://data.wvgis.wvu.edu/pub/RA/State/BL/EssentialFacility/)

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

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**Statewide Risk Assessment Contacts:**

Statewide Risk Assessment Technical Support, WVU GIS Technical Center
 - Kurt Donaldson (kurt.donaldson@mail.wvu.edu)
 - Maneesh Sharma (maneesh.sharma@mail.wvu.edu)
 - Eric Hopkins (Eric.Hopkins@mail.wvu.edu)

State NFIP Coordinator, WV Office of the Insurance Commissioner
 - Chuck Grishaber (Charles.C.Grishaber@wv.gov)

WV Emergency Management Division

 - Brian Penix, State Hazard Mitigation Project Officer (Brian.M.Penix@wv.gov)

 - Tim Keaton, State Hazard Mitigation Planner (Tim.W.Keaton@wv.gov)
 - Kevin Sneed, CTP Coordinator (Kevin.L.Sneed@wv.gov)
 - Nuvia E. Villamizar, GIS Manager (nuvia.e.villamizar@wv.gov)