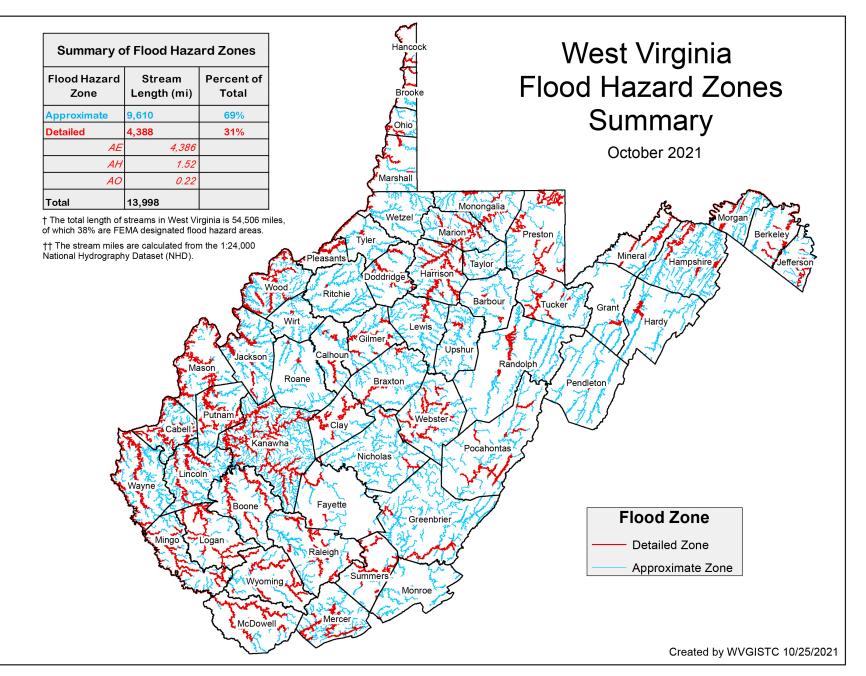
# Statewide Flood Risk Assessment, WVFRF, Feb. 2024



# Flood Hazard Risk

31% of the state has mapped Detailed Flood Zones containing 65% of the buildings in Regulatory Floodplains



Total Modified Area of Regulatory Floodplains (aSFHA) in West Virginia, excluding large open water lakes (> 10 acres), large rivers (bank-to-bank > 500 ft.), and federal lands (> 10 acres): 528,635 acres (3.4% of the State's Area)

**Top 5 Counties** 

**Modified Total** 

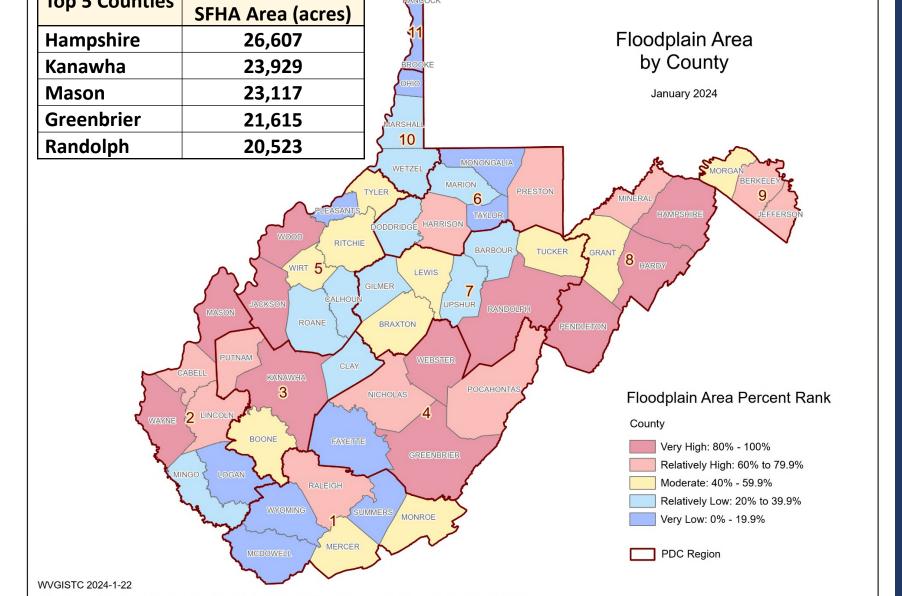
Data Source: Regulatory Effective 1% annual chance (100-yr) floodplain, or Special Flood Hazard Area (SFHA



July 1961 (22 + 2 landslide fatalities), Kanawha County



February 1972 (125 fatalities including 4 missing), Huntington

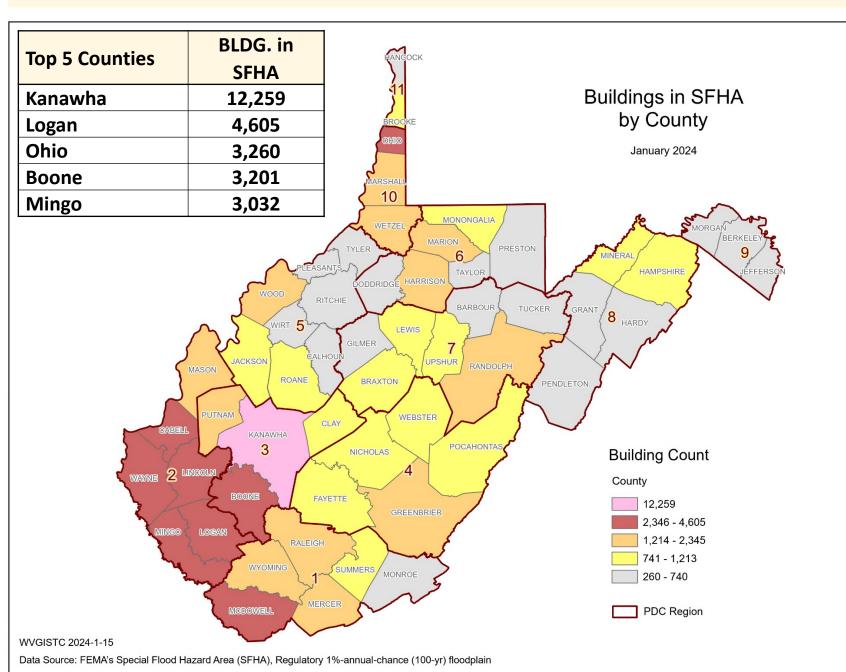


32 Federally-Declared Flood Disasters in West Virginia since 1953

## Structure Risk

#### **Building Counts / Ratios**

- Structures in Regulatory Floodplain (SFHA): 83,556 (8.2% Bldgs. in WV)
- Structures in High-Risk Advisory Zones: 13,503
- Structures in All High-Risk Floodplains: 97,059 (9.6% of Bldgs. in WV)
- Buildings in High-Risk Floodway: 8,239 (9.9% of SFHA Bldgs.)
- Structures in Estimated Depths of Greater than 10 ft: 2,015





#### **Building Year / New** Construction

- Pre-FIRM in Floodplain Ratio: 73.7%
- Post-FIRM in Floodplain Ratio: 26.3%

### **Transportation Infrastructure**

- Inundated Roads: **2,550** miles (6.4%)
- Flood Depth > 3 ft: **1,267** miles

Chesapeake, Kanawha County, August 2023

**Vulnerable Structures** 

- Manufactured Homes in Floodplain: 23,329 (24%)
- Floodplain Buildings with Basements Ratio: 27.9%
- One-Story Floodplain Residential Buildings Ratio: 75.4%
- Renter-Occupied Housing in Floodplain Ratio: **26.6**% ■ Low-Value (< \$10K) Floodplain Buildings Ratio: **7.4**%

### **Physical Damage Estimates**

- Total Estimated Building Loss: \$854.6M (8.2% of Exposure Value)
- Substantial Damage Buildings: **6,587** (**6.8**% of Floodplain Bldgs.)

#### **Significant Structures**

- Floodplain Essential Facilities: **491** (**25.6%** in WV) (K 12 Schools, 911 Centers, Police/Fire Depts., Hospitals, Nursing Homes)
- Floodplain Non-Hist. Community Assets: **2,116** (Religious, government, utility, EMS, postsecondary educational)
- Floodplain Historical Community Assets: **3,159** (National Register, in historic districts before 1930)

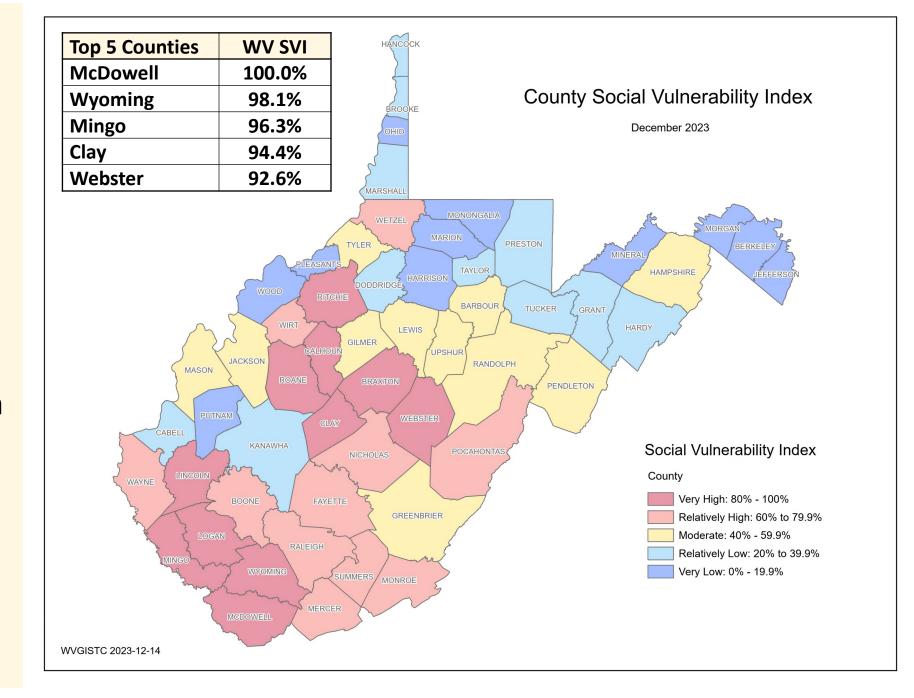
# People / Social Risk

#### **Social Vulnerability Index** (WV SVI)

(0% to 100%)

Combines indicators of:

- Poverty Rate
- Unemployment Rate
- Vulnerable Ages Rate
- Disability Rate
- Population without a High **School Diploma**
- Population Change
- Median Housing Unit Value
- Percentage of Mobile Homes in Housing Units



#### **Building Types / Value**

November 1985 (47 fatalities in WV), Moorefield

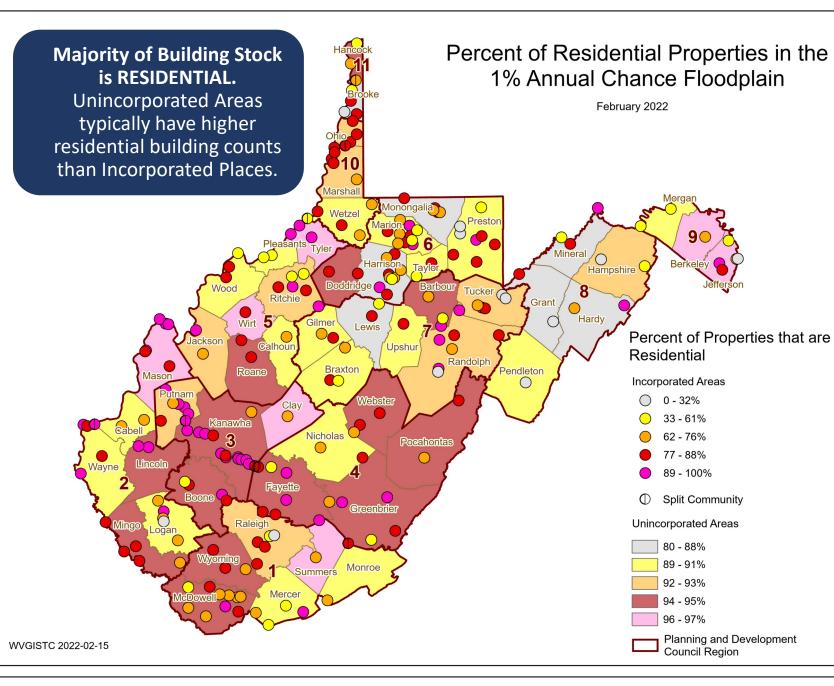
Near Kimball, McDowell

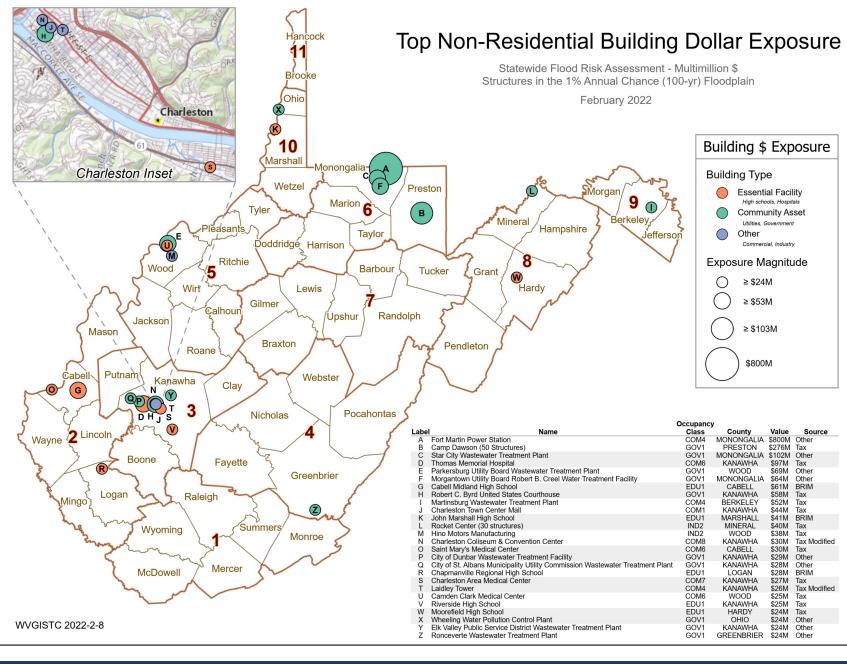
County, July 2001

- Total Building Value in Floodplain: \$10,473M
- Exposed Residential Count Ratio: 88.6%
- Residential Value in Floodplain: \$4,324M (41.3%)

June 2016 (23 fatalities), Rainelle

- High-Value (> 1M) Residential Count: 36
- Non-Residential Value in Floodplain: \$6,149M





### **Human Exposure**

Population Residing in High-Risk Floodplains: **200,255 (11.1%** of WV population)

#### **Human Impacts**

- Population Displaced: 118,856 (6.6% of WV population)
- Short-Term Shelter Population: **22,930** (**5,697 Companion Pets**)

#### **2016 Flood Fatalities**

#### 23 Victims

- **Three** younger than 15 yrs.
- **Eleven** 15 to 64 yrs.
- Nine over 65 yrs.
- Five with Health Conditions or Disabilities
- Nine Risky Behavior