FLOOD HAZARD AREA

**Audio1: The Special Flood Hazard Area (SFHA), as shown on Flood Insurance Rate Maps, is the region likely to be flooded by an event with a 1% chance of occurring in any given year, also known as the base flood or 100-year flood.**

**Audio2:** A 100-year flood does not mean a flood happens only once every century or that another flood won't occur soon after. Climate changes, like El Niño, can lead to clusters of floods in short timeframes. High-risk (red) and advisory (orange) floodplains, based on FEMA’s 2009 model, have a 1% annual chance of flooding, equating to a 26% chance over a 30-year mortgage

SUBSTANTIAL DAMAGE ESTIMATE MODELS

**Audio3:** **FEMA's Flood Assessment Structure Tool (FAST) was used to generate building-level damage estimates in the 3D Flood Visualization, providing open-source estimates of damage in dollars and as a percentage of building replacement cost for a 1% annual chance flood.**

**Audio4:** First-floor height, determined by foundation type, is subtracted from the base flood water depth to calculate the water depth inside each structure. This 'Water Depth-in-Structure' is then used with a damage function to estimate substantial damage in the 3D Flood Visualization. Properties with higher damage percentage estimates indicate greater risk for owners.

**Audio5:** The HAZUS Level 2 flood analysis uses enhanced, verified building inventories to improve the accuracy of flood damage estimates. These building-level flood-risk assessments aid local hazard mitigation plans, support flood reduction efforts, and help communicate flood risk to communities and property owners.

SUBSTANTIAL DAMAGED BUILDING – What does it mean?

**Audio6:** **A Substantially Damaged Building is one where restoration costs to pre-damage condition are equal to or exceed 50% of the building's pre-damage market value.**

**Audio7:** Floodplain management requires that basements below the Base Flood Elevation in Pre-FIRM homes deemed Substantially Improved or Substantially Damaged must be removed, typically by backfilling with compacted soil. The NFIP defines a basement as any area with a floor below ground level on all sides, though local codes may have stricter definitions.

NATIONAL FLOOD INSURANCE PROGRAM - Benefits

**Audio8:** The NFIP provides an Increased Cost of Compliance (ICC) insurance rider, up to $30,000, for required mitigation in cases of substantial or repetitive damage. This helps bring older buildings in the Special Flood Hazard Area (SFHA) into compliance with local regulations, reducing future damage and potentially lowering flood insurance rates. Mitigation options include elevation, wetproofing, demolition, and relocation. **For more information, contact your local floodplain manager or visit Floodsmart.gov.**

CREDITS

**This 3D Flood Visualization is courtesy of the WVU GIS Technical Center, State NFIP Office, State CTP Coordinator, and FEMA Region III.**

**Boldfaced Text =** Abridged version for movie voice over narration

*Compiled by Kurt Donaldson from various FEMA publication sources  
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