FLOOD HAZARD AREA

**The Special Flood Hazard Area (SFHA) identified on the Flood Insurance Rate Maps is the area that will be inundated by a flood event having a 1% chance of being equaled or exceeded in any given year. The 1% annual chance flood is also referred to as the base flood or 100-year flood.**

It should not be interpreted to mean a flood that happens exactly once every 100 years. Nor does it imply that once a 100-year flood occurs there is little risk of another 100-year flood occurring in the near future. To the contrary, changes in climatic conditions, such as those caused by El Niño, often result in clusters of floods that occur over relatively short times at the same location. High-risk effective (red warning color) and advisory floodplains (orange warning color) subject to experiencing a 1% annual chance flood event translates to a 26% chance of flooding over the life of a 30-year mortgage.

SUBSTANTIAL DAMAGE ESTIMATE MODELS

**FEMA's Flood Assessment Structure Tool (FAST) was utilized to produce building-level damage estimates depicted in the 3D Flood Visualization. The open source tool estimates both the damage in dollars ($) and percentage of the building replacement cost for a 1% annual chance flood.**

The First Floor Height is based on the known foundation type and subtracted from the base flood Water Depth to calculate the Water Depth-in-Structure, in feet above ground. The Water Depth-in-Structure is applied with the appropriate Depth-Damage Function to compute the substantial damage estimate for each structure portrayed in this 3D Flood Visualization. **Property owners with higher physical damage percentage estimate are at greater risk.**

The Hazus Level 2 flood analysis relies on enhanced, verified building inventories to increase the accuracy and precision of the flood model damage estimates. **The building-level flood-risk assessments support local hazard mitigation plans and other flood reduction efforts as well as to communicate flood risk to the communities and property owners.**

SUBSTANTIAL DAMAGED BUILDING – What does it mean?

**A Substantially Damaged Building is a structure that has incurred damage by flood or any origin whereby the cost of restoring the building to its before damaged condition would equal or exceed 50% of the market value of the building before the damage occurred.** Another important floodplain management requirement concerns basements. If your Pre-FIRM home has a basement below the Base Flood Elevation and your local officials determine that it is being Substantially Improved or is Substantially Damaged, then the basement must be eliminated. You can usually do this by backfilling it with compacted soil or other suitable material. For floodplain management purposes, the NFIP regulations define a basement as “any area of the building having its floor subgrade on all sides.” Your community’s floodplain management ordinance, regulation, or provisions of the building code may include a more restrictive definition of basement.

NATIONAL FLOOD INSURANCE PROGRAM - Benefits

**The National Flood Insurance Program (NFIP) offers an Increased Cost of Compliance (ICC) insurance rider (up to $30,000) for mitigation activities that are acquired by the local ordinance if the structure is substantially or repetitively damaged.** This will bring a building built in the Special Flood Hazard Area (SFHA) before publication of the community’s first FIRM into compliance with local regulations, reducing future damages and lowering flood insurance rates. **Types of mitigation measures include elevation, wet proofing, demolition, and relocation. Contact your local floodplain manager and FEMA's website Floodsmart.gov (https://www.floodsmart.gov/) if you require more information.**

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  
11/23/2020*