

What Exactly is a 100-year Flood?

The phrase "100-year flood" has caused much confusion over the years. Many mistakenly believe that it is a flood that occurs every 100 years. However, the phrase really means a flood that has a one-percent chance of occurring in any given year.

Floods are classified according to their frequency and depth. For instance, there are 10-year, 25-year, 50-year, 100-year, and 500-year floods. Pine Knoll Shores is subject to the 100-year and 500-year floods. A 100-year flood (and 500-year flood), although less frequent than a 10-year flood, is deeper—and far more destructive. For this reason, the 100-year flood is now more commonly called the "base flood." The chart below shows the statistical chances of being flooded that a building has located in one of these higher risks flood areas over different period.



Chances of Being Flooded

| Period of Time | 10-yr Flood | 25-yr Flood | 50-yr Flood | 100-yr Flood |
|----------------|-------------|-------------|-------------|--------------|
| 1 year | 10% | 4% | 2% | 1% |
| 10 years | 65% | 34% | 18% | 10% |
| 20 years | 88% | 56% | 33% | 18% |
| 30 years | 96% | 71% | 45% | 26% |
| 50 years | 99% | 87% | 64% | 39% |

Buildings located in 100-year flood area are required to have flood insurance as a condition of receiving a federally backed mortgage loan or home equity loan. Given that many mortgages have a repayment period of 30 years, buildings in areas subject to a 100-year flood have a 26% chance of experiencing that flood during the life of the loan. However, during that same period, there is only a 4% chance of a fire.

So, the next time people say that they live in a 100-year floodplain, and the last 100-year flood was three years ago, and they think they don't have to worry about another flood like that for the next 97 years, use this information to explain the real meaning of a 100-year flood.

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