TWO COASTAL FLOOD MAPS

Flood Insurance Rate Maps vs. Storm Surge Inundation Maps

Storm surge is an abnormal rise of water generated by a storm, over and above the predicted tide level. Storm Surge Inundation Maps (SSIMs) and Flood Insurance Rate Maps (FIRMs) both identify areas that are subject to flooding from coastal storm surge. The difference between these two coastal flood map products is described below:

National Flood Insurance Program- Flood Insurance Rate Maps (FIRMs)

FIRMs are regulatory documents produced to support the National Flood Insurance Program. FIRMs establish Special Flood Hazard Areas (SFHAs), flood risk zones and flood elevations. This data is used to set flood insurance rates, to identify where flood insurance is required as a condition of a federally insured mortgage, and for floodplain management and building regulations,. Flood inundation areas shown on the FIRMs for coastal areas are based on the storm surge and wave action (where applicable) from the flood level that has a 1% chance of being equaled or exceeded in a given year (also known as the 100-year flood or base flood). In coastal areas, FIRMs are not intended to be used for evacuation planning and population protection. Unlike the SSIMs, FIRMs are based on the inundation area for the 1% annual chance flood level, and do not provide a depiction of the overall flood risk area that includes the impacts of more intense events.

Hurricane Evacuation Study – Storm Surge Inundation Maps (SSIMs)

SSIMs are a component of a Hurricane Evacuation Study (HES). The HES identifies areas at risk of storm surge flooding from hurricanes, establishes evacuation zones based on those areas of risk, identifies the amount of people living in the at-risk area, predicts the evacuation behavior of people in the at-risk areas, and calculates how long it will take to evacuate the at-risk area during different hurricane scenarios. Unlike the FIRM, the purpose of the HES and the SSIM is not to support insurance or regulatory requirements. Rather, the HES is a tool to support the efforts of government officials to prepare for and respond to a hurricane threat, and to take actions to protect the at risk population. The SSIMs provide the basis for the HES by depicting a conservative estimate of the possible area of storm surge inundation from different categories of hurricanes, without considering probability of occurrence. The SSIMs incorporate the storm surge potential from the simulation of hurricane events covering a wide range of intensities, and can therefore be used for long range hurricane planning purposes and population protection. SSIMs do not establish flood risk zones or flood elevations.

SSIMs provide an overview of all areas that could potentially flood during different categories of hurricanes. Probability of occurrence is not considered. The SSIM is not a regulatory document and is intended to be used to support hurricane planning, preparedness, and population protection.

FIRMs are regulatory documents produced to support the National Flood Insurance Program. They establish flood risk zones and flood elevations for the flood that has a 1% chance of being equaled or exceeded in a given year. The FIRMs are intended to be used for flood insurance rating and regulating building development.

This factsheet was developed through a collaborative effort by the Federal Emergency Management Agency (FEMA), the U.S. Army Corps of Engineers (USACE), and the National Oceanic and Atmospheric Administration (NOAA). For a more detailed description of the methodologies and procedures used to develop FIRMs and SSIMs, please see the "Coastal Flood Maps White Paper" available at www.iwr.usace.army.mil/nhp.