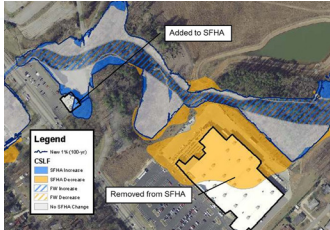


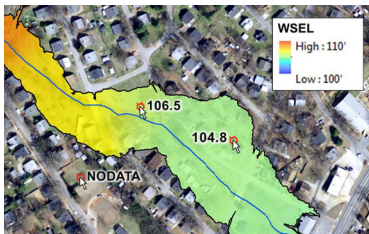


FEMA

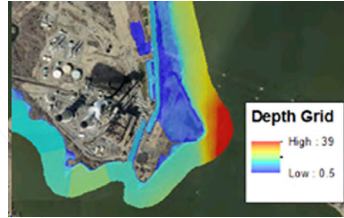
# What datasets are included with the Flood Risk Database?



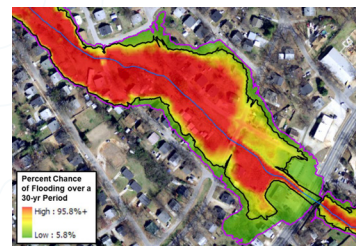
The Changes Since Last FIRM (CSLF) dataset show the boundaries of the 1-percent and 0.2-percent- annual-chance floodplains, floodways, and Coastal High Hazard Areas (Zone VE) have changed since the last Flood Insurance Rate Map (FIRM) was adopted. CSLF also captures changes to the flood zone designations, but not to the depth of flooding in these areas.



The Water Surface Elevation (WSEL) Grid illustrates the variations in flood elevation, in feet above the North American Vertical Datum of 1988 (NAVD88). It is a one-stop shop for finding flood elevations for the entire riverine or coastal floodplain. This grid includes a range of flood event scenarios, including the 10-, 4-, 2-, 1-, and 0.2-percent-annual-chance events, and 1-percent plus, though typically only the 1-percent scenario is produced for coastal floodplains.

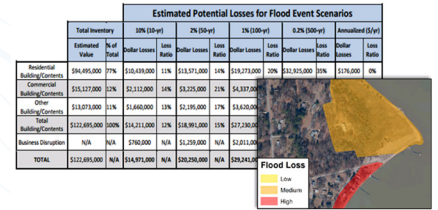


The Flood Depth Grid shows depths, which are calculated as the difference (in feet) between the water surface elevation and the ground and relies on the WSEL grid. The Flood Depth Grid is prepared for a range of flood event scenarios, including the 10-, 4-, 2-, 1-, and 0.2-percent-annual- chance events, and 1-percent plus, though typically only the 1-percent scenario is produced for coastal floodplains.

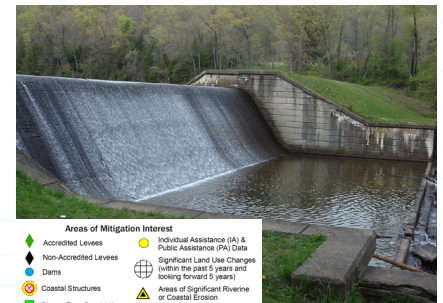


The Percent Annual Chance Grid provides local stakeholders with a better understanding of the chance that a given location will flood in any single year. The grid is available for riverine (non-leveed) areas, using the standard flood event scenarios (10-, 4-, 2-, 1-, and 0.2-percent).

The Percent 30-Year Chance Grid represents the likelihood of flooding at least once in a 30-year period (average mortgage time period) for all locations within the extent of the 1-percent and 0.2-percent annual-chance riverine floodplains.



The Flood Risk Assessment dataset provides potential flood damage estimates based on an analysis of flood depths within the built environment. This dataset quantifies potential future flood losses to existing structures and is used to create the community-specific and project-level tables in the Flood Risk Report.



The Area of Mitigation Interest dataset identifies physical factors such as dams, levees, coastal structures, stream flow constriction, past claims hot spots, key emergency routes that may be overtopped and at-risk critical facilities that may contribute (positively or negatively) to flooding and flood losses; and, thus warrant further research and focus to determine the feasibility of addressing them through mitigation actions.

DATASETS	FEATURES AND BENEFITS	POTENTIAL USES
<b>Changes Since Last FIRM</b>	<ul style="list-style-type: none"> <li>Allows property owners to see if the flood zone designation for their property is likely to change.</li> <li>Includes an optional enhanced field, which may describe why the zone has changed.</li> </ul>	<ul style="list-style-type: none"> <li>Highlights changing flood risk and, when combined with parcels or structures data, can be used for targeted outreach.</li> <li>Can be used to update the flood risk section of the local Hazard Mitigation Plan and meets the “changes in development” requirement for mitigation planning.</li> </ul>
<b>Water Surface Elevation Grid</b>	<ul style="list-style-type: none"> <li>Depicts the variation of flood elevations throughout the floodplain and floodway for each of the flood event scenarios.</li> <li>Provides point-and-click functionality for BFE data throughout the floodplain.</li> </ul>	<ul style="list-style-type: none"> <li>Allows local community officials to provide residents with a BFE for all flood hazard areas, even if one is not required.</li> <li>Makes it easier for building code officials, floodplain managers, planners, and community officials to visualize the vertical extent of flooding relative to the elevation of buildings, roads, or infrastructure.</li> </ul>
<b>Flood Depth Grid</b>	<ul style="list-style-type: none"> <li>Illustrates the variability of flood risk within a floodplain in terms that are easily understood by the public.</li> <li>Flood depth grids show depth, which is calculated as the difference (in feet) between the water surface elevation and the ground and relies on the WSEL grid.</li> </ul>	<ul style="list-style-type: none"> <li>Shows the public the various potential flood depths throughout the floodplain.</li> <li>Depicts different types of high-risk areas, which helps inform land use and comprehensive planning decisions to guide development and infrastructure toward areas with lower flood risk.</li> <li>Allows users to examine flood depths at critical facilities or evacuation routes that may become inundated.</li> </ul>
<b>Percent Annual Chance Grid</b>	<ul style="list-style-type: none"> <li>The grid is computed by using multiple water surface elevation results and their associated percent-annual-chance of exceedance.</li> <li>Coastal and levee areas only receive the 1-percent-annual-chance grid.</li> </ul>	<ul style="list-style-type: none"> <li>Can be symbolized to show what the 10, 4, 2, 1, and 0.2% floodplains look like, all within a single dataset.</li> <li>Can be used to visualize what the estimated floodplain would be for non-traditional flood events (e.g. the 40-yr flood).</li> <li>Helps local stakeholders visualize annual flood risk.</li> </ul>
<b>Percent 30-Year Chance Grid</b>	<ul style="list-style-type: none"> <li>Similar to the Percent Annual Chance Grid, but based on a 30-year period.</li> <li>Calculates chance of flooding over the average mortgage (30-year) time period.</li> <li>Effective visual tool to communicate risk to the public.</li> </ul>	<ul style="list-style-type: none"> <li>Provides data visualization to support financial planning and decision making for mortgage lending and borrowing.</li> <li>Aids mortgage holders and lenders in understanding flood risk vulnerability in terms of the average 30-year mortgage.</li> <li>Can be used to support a community’s comprehensive land use planning decisions for residential housing.</li> </ul>
<b>Flood Risk Assessment</b>	<ul style="list-style-type: none"> <li>Quantifies potential future flood losses to existing structures.</li> <li>Improves users’ ability to identify effective mitigation actions, or areas requiring more flood-resilient designs.</li> <li>Supports mitigation plan updates through improved risk quantification.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies critical facilities at risk that may need to be relocated or retrofitted.</li> <li>Identifies where mitigation activities may produce the greatest return on investment.</li> <li>Provides data for Loss Avoidance Studies, which assess the effectiveness of acquisition/demolition projects in affected areas.</li> </ul>
<b>Areas of Mitigation Interest</b>	<ul style="list-style-type: none"> <li>Although the community may already know much of this information, visualizing it spatially can assist local officials with identifying mitigation strategies and prioritizing mitigation actions.</li> <li>Fosters collaboration by allowing neighboring communities in a study area to see factors that may affect them.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies factors that contribute to flood risk for vulnerability assessments and identifies past mitigation successes for the local Hazard Mitigation Plan.</li> <li>Identifies areas where major flooding could occur in the future due to substandard or decaying flood structures or undersized or poorly maintained culverts.</li> </ul>

Want more Information on Flood Risk Products? Check out our [Flood Risk Products Overview Training](#) by contacting your regional Risk Management Branch or FEMA Map Information eXchange (FMIX).