



FEMA



# Flood Risk Products

Risk MAP will provide state and community officials with three Flood Risk Products to help them gain a better understanding of flood risk and its potential impact on communities and individuals. These products will also enable communities to take proper mitigation actions to reduce this risk.

- Flood Risk Report
- Flood Risk Map
- Flood Risk Database

These products will summarize information captured through the Flood Risk Datasets during a Flood Risk study. These datasets include:

- Changes Since Last Flood Insurance Rate Map (FIRM)
- Flood Depth and Analysis Grids
- Flood Risk Assessment Data
- Areas of Mitigation Interest

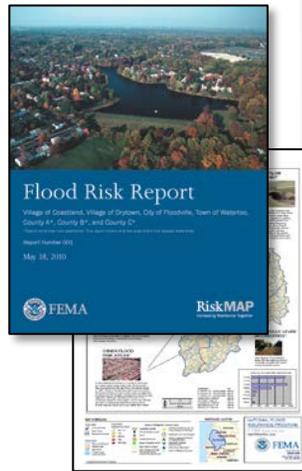
## Flood Risk Report, Flood Risk Map and Flood Risk Database

The **Flood Risk Report** provides stakeholders with a comprehensive understanding of flood hazard and risk exposure within their community, watershed, or other geographic area. The report parallels the Flood Insurance Study report by providing a narrative of the flood risk assessment methodology and results.

The report provides risk assessment information at the project level, placing emphasis on risk reduction activities that may have impacts beyond the specific stream area or community. The report will also provide risk assessment information that can be incorporated into mitigation plans.

The report will also include a **Flood Risk Map** that depicts select flood risk data for jurisdictions within the project area, emphasizing that risk reduction activities may have an impact beyond the site.

The **Flood Risk Database** will be the primary source to access information collected and developed during the flood risk assessment process. The Flood Risk Database parallels the Flood Insurance Rate Map database. It is a project-level database that includes flood risk assessment data collected, created, and analyzed during the flood risk project. FEMA will publish and maintain the database in a standardized form to support national, State, regional, and local distribution. Viewing tools are currently under development, to provide users without access to Geographic Information System (GIS) software, the ability to visualize and understand the multiple flood risk datasets contained within the database.



### Planning for Risk

**Risk is the possibility of suffering harm or loss; danger; a factor, thing, element, or course involving uncertain danger; a hazard.**

**Hazard mitigation planning is the process State, Tribal, and local governments use to identify risks and vulnerabilities associated with natural disasters, and to develop long-term strategies for protecting people and property from future hazard events.**

### What is HAZUS?

**HAZUS-MH is a powerful risk assessment methodology for analyzing potential losses from floods, hurricane winds, and earthquakes.**

### Quantification of Risk Allows Communities to Analyze:

- **Physical damages to residential/commercial buildings, schools, critical facilities, and infrastructure**
- **Economic losses, including lost jobs, business interruptions, repair and reconstruction costs; and**
- **Social impacts, including estimates of shelter requirements, displaced households, and**

# RiskMAP

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## Changes Since Last FIRM

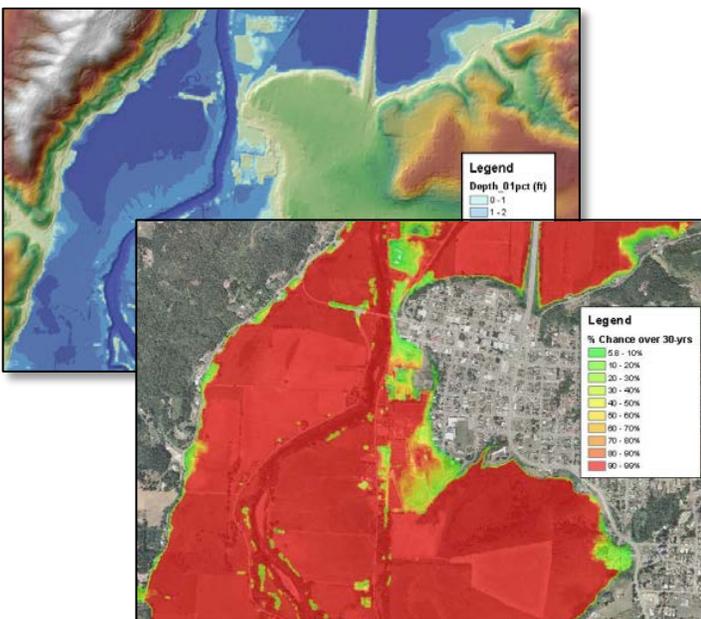
The *Changes Since Last FIRM* dataset helps communities understand changes to their flood maps and prepare for the upcoming flood map adoption process. This product is a spatial dataset that identifies areas of floodplain and flood zone changes that have occurred



since the previous flood map study. The dataset captures areas where the floodplain and floodway have increased or decreased, as well as areas where the flood zone designation has changed (e.g., A to AE). In areas where the mapped flood hazard has changed, the engineering factors that may have contributed to that change will also be identified within the dataset. The built environment affected by the change is quantified and summarized to help locate previously unidentified areas at risk.

## Flood Depth and Analysis Grids

*Flood Depth and Analysis Grids* help communities better understand their flood hazard and risk in the mapped floodplain. Depth Grids will be produced for the 10 percent, 4 percent, 2 percent, 1 percent, and 0.2 percent annual chance flood events. The analysis grids will be used to create additional analyses that depict the percent annual chance of flooding and the percent chance of flooding over a 30-year time period in the floodplain.

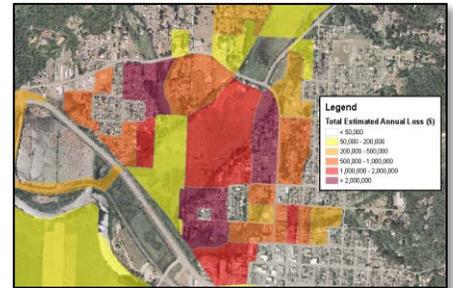


## Flood Risk Assessment

*Flood Risk Assessments* helps guide community mitigation efforts by highlighting areas where risk reduction actions may produce the highest return on investment. Building on the foundation of the 2010 nationwide HAZUS Level 1 Average

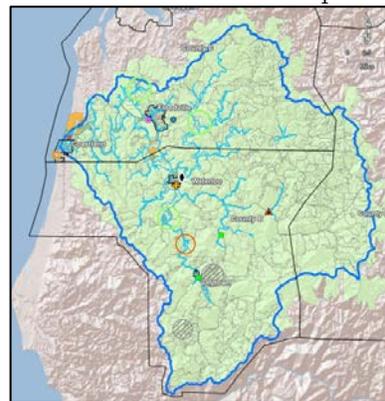
Annualized Flood Loss (AAL) Study, basic refined HAZUS loss estimation analyses will be done for flooding sources with default

HAZUS building stock information. Where local built environment data is available, enhanced HAZUS or other risk assessment analyses are possible. Communities are encouraged to pursue enhanced analysis where possible by providing FEMA with additional GIS data such as parcel data, building footprints, or elevation certificates. Communities may also provide additional funding to support analysis enhancement. The results of both the basic refined and enhanced HAZUS analysis can be incorporated into hazard mitigation plans.



## Areas of Mitigation Interest

The *Areas of Mitigation Interest* dataset helps communities better understand the impact of multiple physical factors



on the floodplain elevation and extent. This enhanced spatial dataset, identifies conditions within a flood risk project area (watershed or otherwise) that may contribute to the severity of the flood hazard and associated losses. These conditions include areas with a

history of flood claims, hydraulic or other structures that contribute to backwater (e.g., undersized culverts, bridges and dams), and areas experiencing land use change or development. By identifying these conditions within the watershed, this product will also assist communities in determining potential mitigation opportunities.

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