

Frequent Questions



Coastal Flood Exposure Mapper

NOAA Office for Coastal Management

coast.noaa.gov/digitalcoast/tools/flood-exposure.html

At what scale is the tool meant to be used?

The mapper is a screening-level tool with existing national data that are locally relevant. The mapper was developed to get the conversation started around coastal flood hazard risks and associated vulnerabilities, but we encourage users to obtain local data to conduct more detailed analyses, if necessary.

At what scale are the data being displayed?

For the contiguous United States, map data are displayed down to the neighborhood level—roughly 1:9,000. For Hawaii and U.S. territories in the Pacific and Caribbean, map data are displayed one additional level down—to roughly 1:4,500.

What is the boundary for coastal counties shown in the mapper?

The county data set used in the mapper is a generalized county boundary data set that includes a three-kilometer buffer along the shoreline of shore-adjacent counties.

Which coastal counties are included?

Coastal counties within the generalized county boundary data set that have data for one or more coastal flood hazards included. If data are not available for a location, it is not included in the mapper.

Why is my county missing data for one or more of the coastal flood hazards?

Sea Level Rise and High Tide Flooding – Your county may not have suitable lidar-based elevation data and hydro-enforced digital elevation models required for accurate coastal inundation mapping.

FEMA Flood Zones – a) Digital flood data may not exist for your county or may not have existed when the mapper was completed. Check the availability of data for your county on FEMA's Flood Map Viewer. The flood data used in the mapper are a combination of Digital Flood Insurance Rate Maps and Q3 flood data available as of October 2018.

b) Your county may only have paper Flood Insurance Rate Maps (FIRMs). Check to see the availability of FIRMs for your community.

c) Your county may not participate in the National Flood Insurance Program (NFIP), which means that flood maps have not been created. Check your state to determine if your county or community participates. You may also contact your state or local floodplain manager as listed on the Association of State Floodplain Managers' website.

Coastal Flood Hazard Composite – The flood hazard composite includes multiple flood hazard data sets combined (best available as of October 2018), including high tide flooding; FEMA flood data including V zones, A zones, and 500-year zones treated as individual layers; storm surge for category 1, 2, and 3

hurricanes; sea level rise scenarios for 1, 2, and 3 feet above mean high tide; and tsunami run-up zones where available. Flood hazard composites were developed only for counties that have all three of the following hazard data sets: FEMA flood zones, sea level rise scenarios, and high tide flooding.

What is the purpose of the Coastal Flood Hazard Composite map?

The concept for a coastal flooding composite hazard layer was initially developed for coastal areas of New York after Hurricane Sandy to depict geographically dependent susceptibility to coastal flooding, storm surge, and long-range inundation impacts. The mapping method was modified and expanded to the rest of the East Coast, Gulf of Mexico, West Coast, and Pacific and Caribbean islands and territories for the Coastal Flood Exposure Mapper. This map layer aggregates risk information for multiple coastal flood hazards. This map shows the gradient of coastal flood risk that ranges from areas outside the FEMA 1% annual chance floodplain that are still at risk from high magnitude, low frequency events like major landfalling hurricanes and tsunamis, to areas nearer the coast that are also at risk from higher frequency flood events, wave impacts, and long-term sea level change. At any given location the user can query which coastal flood hazards may impact that spot. This layer should not be confused with, and may not be substituted for, any existing regulatory risk maps or associated boundaries. These maps are for planning purposes only.

Does the sea level rise map show scenarios added to FEMA flood zones (base flood elevation)?

No. The sea level rise layers show inundation scenarios of 0 to 10 feet based on the current average highest high tide (called mean higher high water, or MHHW).

Are the data available for download?

The layers displayed in the Coastal Flood Exposure Mapper are available as map services to pull into platforms outside the tool. However, data are not available for download directly from the tool. In most cases, data used in these layers can be downloaded from the authoritative source. View the “Data Sources” documentation for links to the map services and the authoritative sources for each data set.

Are you expanding the mapper nationally?

We have gradually expanded the geographic coverage of the Coastal Flood Exposure Mapper. Currently, the mapper covers coastal areas along the East Coast, West Coast, Gulf of Mexico, Hawaii, and U.S. territories in the Pacific and Caribbean. We are exploring options to expand the mapper to other regions. Please [contact us](#) if interested.

Do you have examples of how communities have used the mapper?

The “Related Stories” section of the Digital Coast mapper home page has several stories describing how communities have used the mapper. We are always interested in learning how the tool has been used. Please [contact us](#) to share your examples. Your story may help others.

How does this tool differ from NOAA’s Sea Level Rise Viewer?

The mapper was designed with a specific audience in mind and was developed based on needs heard during NOAA’s risk and vulnerability trainings for maps that show coastal flood hazards in addition to sea level rise, along with community assets. Sea level rise and high tide flooding data from the Sea Level Rise Viewer are included in the mapper. The Sea Level Rise Viewer is focused specifically on sea level rise, high tide flooding, and marsh impacts.

Can we add our own local data to the mapper?

No, but layers displayed in the mapper are available as map services (links in the “Data Sources” documentation), which you can use in online mapping platforms or desktop software to create maps with local data. Visit the [ArcGIS Online Tutorial](#) to learn how to add data and map services to a map in that free online mapping platform.