



## Great Lakes Coastal Flood Study

The Federal Emergency Management Agency (FEMA) has initiated a coastal analysis and mapping study to produce updated Digital Flood Insurance Rate Maps (DFIRMs) for coastal counties along the Great Lakes. The new coastal flood hazard analyses will utilize updated one percent annual chance (100-year) flood elevations obtained from a comprehensive storm surge study being developed by the U.S. Army Corps of Engineers.

The storm surge study is one of the most extensive coastal storm surge analyses to date, encompassing coastal floodplains in the eight States with coastlines on the Great Lakes.



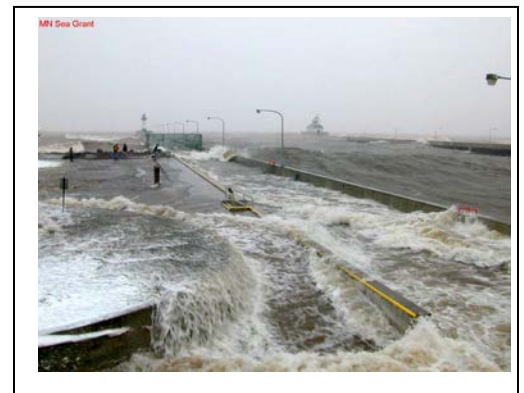
An updated coastal flood study is needed to obtain a better estimate of coastal flood hazards on the Great Lakes. The current, effective Flood Insurance Rate Maps (FIRMs) are outdated primarily due to the age of data and the coastal methodologies used in producing them. Major changes in National Flood Insurance Program (NFIP) policies and methodologies have been implemented since the effective date of many flood insurance studies in the area, creating the need for an update that will reflect a more detailed and complete hazard determination.

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### A Collaborative Effort

The Great Lakes Coastal Flood Study is a collaboration of FEMA, USACE, ERDC, State partners, ASFPM and FEMA contractors to establish technically sound processes for updating data on Great Lakes Coastal flood hazards.

This methodology will be incorporated into the existing FEMA guidance entitled "Guidelines and Specifications for Flood Hazard Mapping Partners; Appendix D: Guidance for Coastal Flooding Analyses and Mapping" to revise the existing methodology for wave elevation determination and coastal flood hazard mapping along the Great Lakes coastline.



# RiskMAP

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## Program Summary

The Great Lakes Coastal Flood Study includes a system-wide solution that provides a comprehensive analysis of storm and high water events within the Great Lakes Basin. This program is funded through the Federal Emergency Management Agency (FEMA) Risk MAP program. FEMA, USACE, ASFPM, State partners, and FEMA contractors will collaborate in updating the coastal methodology and flood maps. FEMA manages the National Flood Insurance Program (NFIP), which is the cornerstone of the national strategy for preparing communities for flood-related disasters.

## Program Vision

The aim is to update NFIP products to increase public awareness of short- and long-term lake level variations, storm events and associated storm surge and waves in order to improve community resiliencies related to flood losses (life, property, and business).

## Program Goals and Objectives

1. Engage communities to support the program vision.
2. Address flood hazard gaps in the NFIP map inventory to achieve a comprehensive and consistent identification of flood hazards.
3. Provide an enhanced digital platform that improves access to coastal storm and water level datasets and Risk MAP products.
4. Deliver updated hazard information that will assist in decisions on future growth in community comprehensive planning to help avoid or eliminate flood-related losses.
5. Reduce taxpayer-supported flood disaster relief by supporting high priority mitigation actions.



## Great Lakes Flood Hazards

Coastal flooding is primarily caused by storm surge and waves but many other factors have an influence. On the Great Lakes shorelines, flooding is dependent on local lake levels, which vary as a result of precipitation, evaporation, and other natural processes, as well as anthropogenic activities. Ice cover impacts the flood hazard significantly. These phenomena distinguish the analysis of flood hazards on the Great Lakes from those for ocean coastal areas.



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