**Discovery Report Executive Summary**

The Federal Emergency Management Agency's (FEMA's) Lake Michigan Discovery Report provides users with a comprehensive and holistic understanding of historical flood risk, existing coastal data, and current flood mitigation activities within the Lake Michigan basin. The report also provides users with a summary of FEMA's intent to proceed with a coastal flood hazard study under FEMA's Risk Mapping, Assessment, and Planning (Risk MAP) program and the Great Lakes Coastal Flood Study (GLCFS) project.

The GLCFS is a comprehensive study of coastal flood hazards for all United States shoreline along the Great Lakes Basin. The study is being performed by FEMA in cooperation with the U.S. Army Corps of Engineers (USACE), the Association of State Floodplain Mangers (ASFPM), and other partners. The GLCFS project will put a wide range of data in the hands of communities along the Great Lakes, including Lake Michigan, to promote long-term reduction in flood risk and enhance public safety.

Like all other Risk MAP projects, the GLCFS begins with a Discovery phase. The Discovery process for Lake Michigan involved basin-wide extensive data collection and outreach efforts with Lake Michigan stakeholders. The Lake Michigan stakeholder group includes representatives from FEMA, other federal agencies, state agencies, local government, and several other technical focus groups. Data collection efforts under Discovery phase include base map data, coastal data, historic flood data, risk assessment, flood mitigation information, community plans and projects along the shoreline, and other comments based on local knowledge of flood risk. Additionally, certain useful datasets are being developed for use in this study. These datasets include oblique imagery, topography and bathymetry data, shoreline feature dataset to classify shoreline characteristics, a draft transect layout, and a storm surge and wave study, all of which will feed into the coastal flood hazard analysis for Lake Michigan.

The GLCFS for Lake Michigan will include coastal flood hazard analysis for all communities located along the shoreline and will use the response-based computation approaches outlined in FEMA's *Draft Guidelines and Specifications for Coastal Studies along the Great Lakes, Appendix D.3 Update, May 2012*. The coastal flood hazard results will be transferred to workmaps and released to communities for review. Coastal flood risk assessment products may also be generated for identified Lake Michigan coastal communities. These products may include Flood Risk Maps, Flood Risk Reports, Changes Since Last FIRMs, Flood Depth and Analysis Grids, and Hazus 2010 1-percent exposure, as well as some additional Great Lakes products that are under consideration.

The study may result in delineation of new Special Flood Hazard Areas (SFHAs), designation of VE Zones, and identification of Limits of Moderate Wave Action (LiMWAs) on the FIRM for the first time. Communities participating in the National Flood Insurance Program (NFIP) that will have mapped VE Zones as a result of this study will be required to adopt floodplain management regulations that meet or exceed the minimum NFIP requirements for building in VE Zone. FEMA does not impose any additional floodplain management requirements based on the LiMWA. The LiMWA is provided to help communicate the higher risk that exists in that area compared to rest of Zone AE areas.

In addition to the identification and assessment of flood risk along the Great Lakes, the GLCFS project may provide tools and information to communities that encourage identification and implementation of mitigation actions to reduce risk. Mitigation provides a critical foundation on which to reduce loss of life and property by avoiding or lessening the impact of hazard events and it is an essential part of this coastal flood study process.

As part of this Discovery process, local Hazard Mitigation Plans were reviewed to better understand existing flood risk within the Lake Michigan communities, as well as the strategies and actions that have already been developed as part of the local planning processes to mitigate that risk. By first obtaining a better understanding of existing local risk and mitigation actions during this Discovery phase, it is FEMA's intent to begin to work with communities to identify new mitigation actions and strengthen existing actions throughout the coastal flood study. In addition, FEMA will seek to identify communities that could benefit from mitigation assistance through partnership with FEMA.

To support the identification and attainment of mitigation actions, as well as local mitigation planning efforts during this coastal flood study, FEMA introduced the Mitigation Action Form and Mitigation Action Tracker to Lake Michigan stakeholders during Discovery. The form and tracker demonstrate FEMA's effort to help track and identify local potential Areas of Mitigation Interest (AoMI) and new or improved mitigation actions that seek to reduce risk.

FEMA will continue to coordinate and communicate as future developments in the Lake Michigan coastal flood study process occur. The GLCFS website http://www.greatlakescoast.org is an excellent resource where stakeholders can obtain up-to-date information about the status of this study, data collection, upcoming meetings, new technical reports, the latest methodologies, factsheets, and much more. FEMA encourages stakeholders to remain involved and will seek to identify partnership opportunities during the study.