

Baltimore Coastal Storm Risk Management Study



Hurricane Isabel

September 19, 2003

Isabel brought intense winds and extensive flash flooding. High storm surges occurred along the Chesapeake Bay and its tributaries. Over 570 homes and 15 businesses were declared uninhabitable from flooding. Isabel cost Baltimore \$4.8 million and left 70,000 people without power in the city.

Excerpt pulled from the Baltimore Office of Sustainability



Fells Point Recreation Pier Flooding

Study Process

- Assess the study area’s coastal flooding problems, opportunities and what the future conditions would look like without a project (incorporating sea level rise and climate change predictions);
- Assess the feasibility of implementing system-wide or site-specific coastal storm risk management solutions: structural, non-structural, and natural and nature-based features;
- Provide study partner MDOT with coastal storm risk management recommendations;
- Release a draft report for public comment (late summer 2020);
- If MDOT wants to proceed with recommendation in final report (early 2022) and it’s in the federal interest, Corps will request Congressional authorization and funding to implement a project.

Products from Study

- Flood inundation mapping (where flooding is to occur and how deep, based on various storms).
- Structural damage assessment (what could be damaged during a storm and at what estimated cost).
- Vulnerability assessment of critical infrastructure at risk (transportation systems, water treatment plants, etc.).
- Evaluation and recommendations for flood risk management options.
- Environmental Impact Statement (anticipated effects on environment of recommendations).
- Feasibility Study Report (including conceptual designs and costs for recommendations).

Authority and Economics

- Baltimore Harbor and Channels, Resolution of the Committee on Public Works and Transportation of the U.S. House of Representatives (April 1992).
- Coastal storm risk feasibility study stemming from results of North Atlantic Coast Comprehensive Study (2015).
- Study is authorized to focus on coastal storm risk flooding, not flooding from heavy localized rainfall, stormwater or high tides.
- Study initiated with Maryland Department of Transportation, and Federal Cost Share Agreement signed August 2019.
- \$3 million study cost shared evenly between the Corps and MDOT.

Economic Evaluation

Primarily considers:

- Valuation of homes, businesses and other properties and their contents to determine potential flood damages.
- Transportation and infrastructure flooding disruption valuation (waterborne, rail, highway, businesses, etc.).
- Economic benefits determined by comparing the current condition without a project to anticipated condition if project existed.

The annual benefits of the recommended project must be compared to the annual costs to construct and maintain the recommended project (Benefit to Cost ratio) to determine if project is in federal interest.