FEMA Region II NY and NJ Coastal Restudy Newsletter

JULY 2019 UPDATE

WHAT IS THE NY & NJ COASTAL RESTUDY?

The Coastal Restudy will reexamine the flood risk information for New York and New Jersey. New storm surge analysis and wave modeling will produce revised flood maps for coastal communities. FEMA is conducting the restudy in response to New York City's 2015 appeal of the 2013–2014 preliminary Flood Insurance Rate Maps (FIRMs) for the area.

WHERE ARE WE IN THE RESTUDY PROCESS?

In the February 2019 newsletter, we considered four key elements of the restudy:

1 UPDATING THE DIGITAL ELEVATION MODEL (DEM)

A DEM is a map of ground and sea floor elevation that is used in the storm surge and wave models. The DEM has been completed using the latest elevation data.

2 UPDATING THE STORM SURGE MODEL

Many aspects of the storm surge model have been updated to improve its estimate of storm surge in future events. Additional assessments of coastal features were added to better capture how water flows through and across the restudy area. Information from storm events since the last study, including Hurricanes Sandy and Irene, was also added. These updates will generate high resolution modeling results and more accurate floodplain mapping.

3 MODEL VALIDATION

Model validation is underway to make sure that the model works. Measured data collected from tide gauges and high water marks during historic events are compared to storm surge elevation estimates reproduced by the model.

4 FIELD RESEARCH AND DOCUMENTATION

Five reports will document the restudy—three focused on the storm surge restudy, one for the overland wave hazard analysis, and one for coastal mapping. The first report, "Data Acquisition and Technical Approach," will be completed this summer.

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WHAT IS AN IDS?

Five Intermediate Data Submittals (IDS), or reports, will document the Coastal Restudy. These reports are key milestones in the Coastal Restudy process and are a critical part of the internal quality management plan. The reports document the restudy's proposed technical approach, including details about the New York/New Jersey storm surge study and modeling that will inform the wave analyses. This IDS also formally documents local knowledge and field data collected so far. In the IDS, FEMA and its mapping partners record and document all technical processes and decisions. The reports provide detailed data that can later be used to reconstruct or support the study results.

The first report, "Data Acquisition and Technical Approach," will be delivered to FEMA in summer 2019. The document is expected to be around 500 pages long, and it will detail all elements of the Coastal Restudy completed to date. After a thorough internal review, the submission will be independently reviewed by a team of subject matter experts and the Coastal Advisory Panel, which includes key stakeholders from along the New York and New Jersey coasts.

CORE COMPONENTS OF IDS 1

The data and methods included in the IDS 1 report will ultimately inform the revised flood maps. In addition to providing a brief overview of the major technical components of the restudy, IDS 1 will document how the restudy addresses the three primary issues brought up in the appeal.

ISSUE 1: EXTRATROPICAL STORM VALIDATION

The report will detail how available water level and wave data were collected and analyzed to inform the hydrodynamic and wave model validation effort for extratropical cyclones. A list of extratropical cyclones considered in model validation will also be included. Recommendations made in the 2017 Coastal Sensitivity Analysis will be evaluated for adoption, and next steps will be detailed in the report.

ISSUE 2: REPRESENTATION OF TIDAL EFFECTS

The IDS 1 submission will document the mapping partner's approach to incorporate the effects of tides on storm surge. This innovative methodology will account for the different types of uncertainty that are associated with tidal effects.

ISSUE 3: INCLUSION OF POST-2009 STORM EVENTS

IDS 1 will document how post-2009 historical events were evaluated for inclusion in the storm surge model and model validation processes. Additionally, IDS 1 will present and review other information that has become available since 2009 and how it will be incorporated in the revised flood maps. This includes new land use/land cover data, an updated assessment of coastal features, and the latest elevation data.

In addition to responding to community and technical stakeholder comments from the preliminary FIRMs that were appealed, the report provides an opportunity for stakeholders to continue shaping the direction of the project.

WHAT IS NEXT?

In fall 2019, FEMA is planning to hold meetings for stakeholders within the Coastal Restudy areas to share additional information on IDS 1 and preview preliminary findings from the next IDS. As FEMA and its mapping partners make progress on the restudy, IDS reports will be generated to document these efforts. Four additional IDS reports will be developed. Two will focus on the storm surge and modeling approach (IDS 2 and 3) and two will detail the overland wave analyses and coastal mapping (IDS 4 and 5).

WHO MAY I CONTACT FOR MORE INFORMATION?

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