

# MAPPING THE RISK

## Flood Map Update: Baldwin County

### Background

The Federal Emergency Management Agency (FEMA) has undertaken a multi-year engineering analyses and mapping effort. The analyses and mapping will better identify, assess, and communicate hazards and risks associated with riverine and coastal flooding in Alabama.

Through this effort, FEMA produced updated Flood Insurance Rate Maps (FIRMs) for Baldwin and Mobile Counties in 2007 and 2010, respectively. However, in these two counties, the mapping effort did not include new engineering analyses. The 2007 and 2010 updates focused primarily on digital conversion of the existing FIRMs using the latest FEMA specifications.

Currently, FEMA has a cooperative agreement with the Alabama Department of Economic and Community Affairs (ADECA) Office of Water Resources (OWR) to assess the risk of riverine and coastal flooding in Baldwin and Mobile Counties with new engineering analyses and to produce updated FIRMs.

### Phases of Flood Map Update

The mapping effort is structured around four phases:

1. Scoping
2. Map Production
3. Preliminary FIRM and FIS
4. Effective FIRM and FIS

These phases are further broken down into production steps, as shown in the figure to the right.

### Current Status – Phase 2

Phase 1, Scoping, has been completed for Baldwin County. During this phase, 55 riverine miles and 111 coastal miles were identified for detailed engineering study. Currently, ADECA is performing the hydrologic and hydraulic modeling for the riverine and coastal areas. This phase is anticipated to extend into Spring 2015, with the preliminary FIRM and FIS anticipated for release in Summer 2015.

- **What does a detailed riverine study entail?**

The FEMA riverine flood risk study process is guided by the procedures described in FEMA's *Guidelines and Specifications for Flood Hazard Mapping*. Riverine flooding occurs in rivers, streams, ditches, or other waterways that are subject to overbank flooding, flash floods, and urban drainage system flooding. Riverine studies involve the collection and analysis of information about the river's

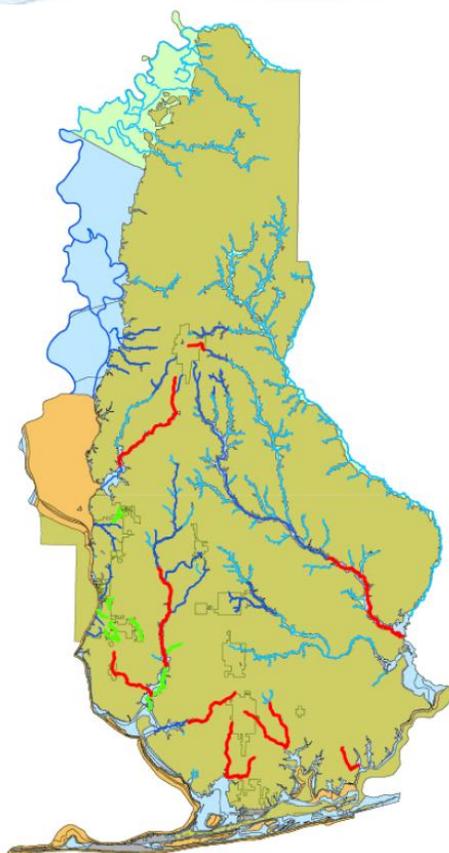
#### PHASE 1 – SCOPING - *completed*

#### PHASE 2 – MAP PRODUCTION – *ongoing 2014 through Spring 2015*

- Topographic and field surveys
- Riverine engineering analyses
- Coastal engineering analyses
- Hydrologic and hydraulic simulations
- Delineation of preliminary floodplain boundaries, base flood elevations, and flood insurance risk zones
- Preparation of preliminary Flood Insurance Study (FIS) Report
- Preparation of preliminary FIRM panels for community review

#### PHASE 3 – PRELIMINARY FIRM AND FIS - *upcoming Summer 2015*

#### PHASE 4 – EFFECTIVE FIRM AND FIS - *upcoming Fall 2016*



watershed, the topography or the lay of the land along the river, precipitation, and the characteristics of the river itself. The results of a riverine study are flood depths and flood profiles, which are used to describe the special flood hazard area.

- ***What does a detailed coastal study entail?***

The FEMA coastal flood risk study process is guided by the procedures described in FEMA's *Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update*. The coastal flood risk study includes two phases: (1) storm surge and wave modeling and (2) wave hazard analysis and mapping. Storm surge is the rise in water level associated with the passage of a hurricane. Wave modeling is the determination of storm surge magnitude based upon storm track and speed, atmospheric pressure, offshore water depths, and landfall location. The results of storm surge and wave modeling are still water elevations. Stillwater elevations to used to perform overland wave modeling to define the coastal hazard areas and establish the special flood hazard area.

### **Why is the Flood Map Update Important to Me?**

As a result of the updated FIRMs, property owners throughout Baldwin County will have up-to-date, reliable, internet-accessible information about their flood risk — on a property-by-property basis. By showing the extent to which areas of Baldwin County — and individual properties — are at

risk for flooding, flood maps help business and property owners make better financial decisions about protecting their property. These maps also allow community planners, local officials, engineers, builders and others to make important determinations about where and how new structures and developments should be built.

### **How can I Participate?**

Baldwin County residents are encouraged to visit the ADECA floodplain management website for information about the National Flood Insurance Program (NFIP) and the importance of floodplain management in Alabama. This website also includes a locator feature to determine if your property is located within the currently identified floodplain:

[www.adeca.alabama.gov/floods](http://www.adeca.alabama.gov/floods)

In addition, FEMA Region IV provides coastal analysis and mapping information for the Southeast United States on the following website:

[www.southeastcoastalmaps.com](http://www.southeastcoastalmaps.com)

As the end of the Map Production Phase draws near, public outreach activities will include additional information sheets, presentations, and open house events.

### **Contact Information**

Questions regarding the flood mapping effort should be addressed to the Floodplain Management Branch Chief of ADECA OWR:

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