



## Coastal Flood Risk Study Meetings

The Federal Emergency Management Agency (FEMA) Region IV Office in Atlanta has undertaken a multiyear coastal flood risk study effort to better identify, quantify, and communicate the coastal flood hazards and associated risks in Alabama, Florida, Georgia, Mississippi, and North and South Carolina and to produce updated Flood Insurance Rate Maps (FIRMs). This effort is being undertaken as part of the FEMA Risk Mapping, Assessment, and Planning ([Risk MAP](#)) program. This Fact Sheet describes how FEMA engages and coordinates with community Chief Executive Officers (CEOs), Floodplain Administrators (FPAs), and other officials, as well as a variety of other stakeholders, throughout the lifecycle of a Risk MAP coastal flood risk study. Specifically, it covers meetings held during most coastal flood risk studies.

### Overview of the Coastal Flood Risk Study Process

The coastal flood risk study process for most study areas will include the five phases shown in Figure 1 on page 2 and summarized below. Through these phases, FEMA works with communities to identify, study, and map their flood hazards. Mitigation actions are identified, planned, and implemented throughout the study lifecycle.

#### Phase 1 – Kickoff and Discovery Meetings

During the Discovery Phase, or Phase 1, FEMA meets with coastal communities, State representatives, and other key stakeholders to share data, collaboratively determine needs, and identify the best path forward. As shown in Figure 1, Phase 1 activities can include data collection and stakeholder coordination; a kickoff meeting; Discovery Meeting(s); and the creation and distribution of a Discovery Map, Discovery Report, and Project Charter.

#### Phases 2 and 3 – Technical Outreach Meetings

During Phases 2 and 3, the Project Team conducts technical outreach meetings with community FPAs and other technical staff.

- During **Technical Update Meetings**, the Project Team presents an overview of the coastal study methodology, the planned production schedule, and results of the study to date. Discussions during these meetings focus on technical topics, such as storm surge model development, identification and classification of storm parameters, and storm validation.
- During **Storm Surge Analysis Update Meetings**, the Project Team summarizes activities to date, reviews the results of the storm surge and stillwater analysis portion of the study, explains how the storm surge and stillwater analyses may be used to update the information shown on the effective FIRMs and Flood Insurance Study (FIS) reports, and describes the other components that will be used in conjunction with the storm surge to create the updated FIRMs and FIS reports.

#### Coastal Flood Risk Study Process Emphasizes Coordination and Engagement with Community Officials and Other Stakeholders

As with other Risk MAP program projects, coastal flood risk studies include close coordination with, and engagement of, community officials. The project's risk communication and community engagement elements during the five phases of a study include multiple formal and informal meetings with community officials, residents, and other stakeholders.

#### Key Coastal Mapping Terms

The following are presented on preliminary and final versions of the updated digital Flood Insurance Rate Map (FIRM) panels for coastal communities.

- **Special Flood Hazard Area (SFHA)** – An area subject to flooding by the 1-percent-annual-chance flood.
- **Coastal High Hazard Area (CHHA)** – An SFHA, labeled Zone VE on the FIRM, that represents the area exposed to wave heights of 3 feet or greater. The CHHA is sometimes referred to as a high-velocity zone.
- **Limit of Moderate Wave Action (LiMWA)** – The boundary line for the 1.5-foot wave. Post-disaster assessments and laboratory research have shown that waves as small as 1.5 feet can cause significant structural damage in these areas of moderate coastal flood hazard.
- **Coastal A Zone** – An SFHA, labeled Zone AE on the FIRM, that represents the area subject to wave heights that are greater than or equal to 1.5 feet but are less than 3 feet. The LiMWA forms the landward boundary of the Coastal A Zone.
- **Primary Frontal Dune (PFD)** – A continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach. The PFD is subject to erosion and overtopping from high tides and waves during major coastal storms.

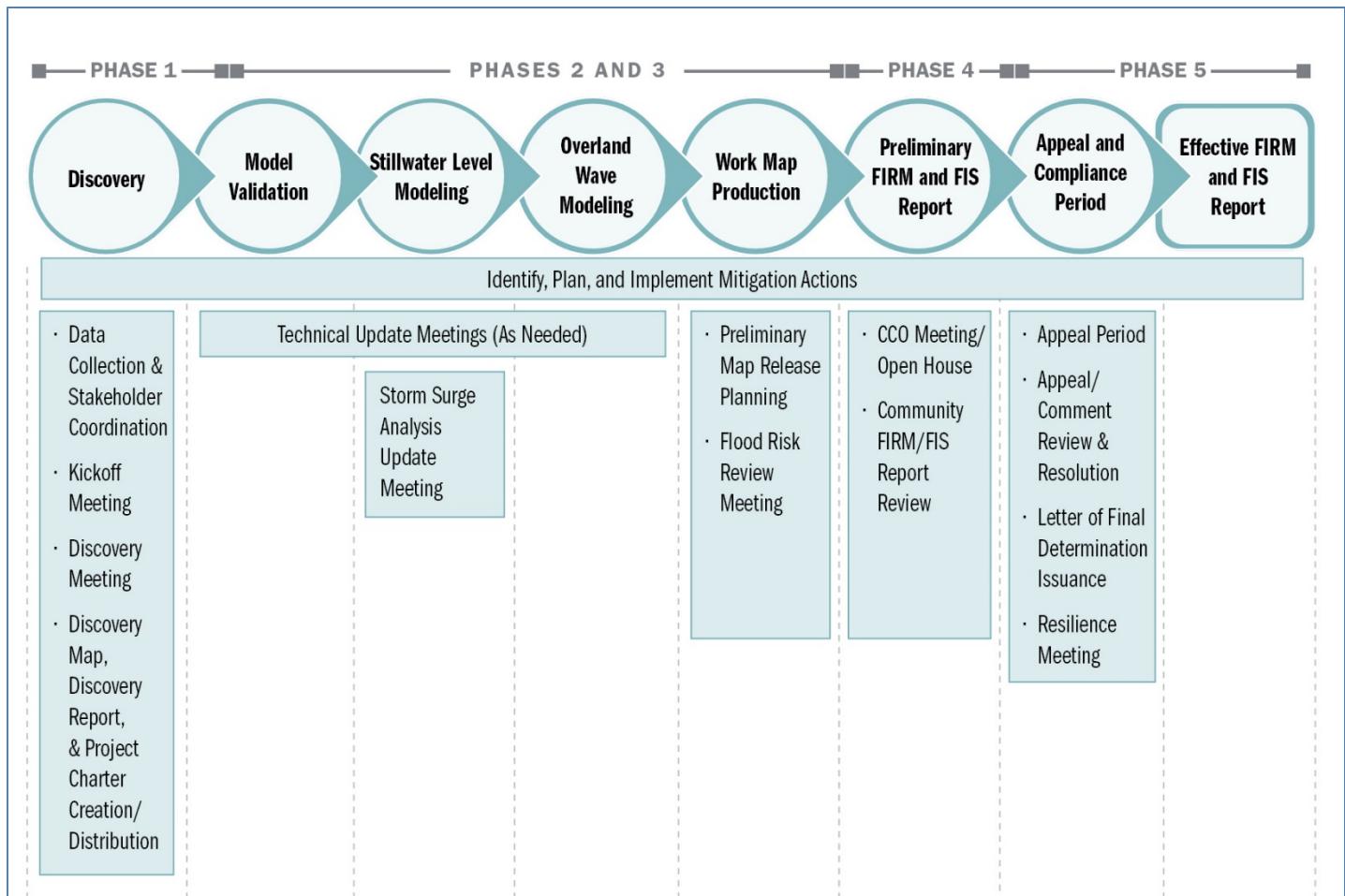


Figure 1. Coastal Flood Risk Study Lifecycle

- During Phase 3, the Project Team also performs overland wave modeling and develops draft work maps showing the initial Base (1-percent-annual-chance) Flood Elevations (BFEs), Special Flood Hazard Areas (SFHAs), other flood insurance risk zones, the Primary Frontal Dune, and the Limit of Moderate Wave Action. (See “Key Coastal Mapping Terms” in the right-side call-out box on page 1 for additional information.)
- Toward the end of Phase 3, the Project Team holds **Flood Risk Review Meeting(s)**, during which community FPAs and other technical stakeholders can discuss the results of the overland wave modeling and view digital versions of the draft work maps showing the initial BFEs, SFHAs, and other flood risk zones.
- During the Flood Risk Review Meetings, the Project Team also provides attendees with a graphic depiction of the changes in the SFHA that have occurred since the effective FIRM was published. This Flood Risk Product is referred to as the **Changes Since Last FIRM (CSLF)**. The CSLF makes it easy for users to see where the SFHAs have expanded or contracted.
- During these meetings, the Project Team also solicits feedback on the work maps from attendees and shares its planned schedule for providing Preliminary versions of the updated FIRM and the FIS report to the community and the public during Phase 4. The FIS report documents the results of the coastal flood risk study in text and tabular form.

#### Phase 4 – Consultation Coordination Officer Meetings and Flood Risk Open Houses

- At the beginning of Phase 4, the Project Team provides the Preliminary FIRM and FIS report to community officials for review before they are made available to the public.
- After a brief review period, the Project Team meets with community CEOs, FPAs, and other officials to explain changes made to the FIRM, to answer questions about the information shown, and to obtain any other feedback regarding the coastal flood risk study.
- Once community officials' concerns have been addressed, the Project Team schedules **Consultation Coordination Officer (CCO) Meeting(s)**, during which community officials and key stakeholders focus on the release of the Preliminary version of the FIRM and FIS report and the process for reviewing and adopting the FIRM before it becomes effective.
- Following the CCO Meeting(s), community officials host **Flood Risk Open House(s)** for the public, supported by FEMA and other Project Team members.
- During the Flood Risk Open House(s), property owners and other residents have an opportunity to review the Preliminary FIRM panels, FIS report materials, and CSLF.
- Open House attendees also have an opportunity to learn more about the appeal and compliance periods and the map adoption process and to ask questions about flood insurance and other mechanisms for reducing the flood risk to their homes, businesses, and families.

#### Phase 5 – Appeal/Compliance Periods and Resilience Meetings

- At the beginning of Phase 5, FEMA initiates a 90-day appeal period, during which the community and citizens may appeal or comment on the proposed flood hazard information shown on the Preliminary FIRM and/or FIS report.
- To support an appeal, the community or individual must submit scientific or technical data that proves the flood hazard information is shown in error. Because all appeals and comments are submitted to FEMA by the community, residents with any concerns about the flood hazard information should contact community officials.

- At the end of the 90-day appeal period, after addressing all appeals and comments, FEMA issues Letters of Final Determination (LFDs) to affected communities. LFDs establish that the flood hazard information is final and initiate 6-month compliance periods. During the compliance periods, affected communities must adopt the FIRM and update their floodplain management ordinances to comply with Federal and State standards.
- During the compliance period, the Project Team holds one last set of meetings with community officials and other stakeholders. These meetings, referred to as **Resilience Meetings**, are held to identify and discuss in-progress and potential mitigation actions, including those documented in local Hazard Mitigation Plans.
- Additional Flood Risk Products are presented during the Resilience Meetings to help attendees make more informed decisions. These products include Coastal Flood Risk Reports, Coastal Flood Risk Databases, Coastal Increased Inundation Areas, and Coastal Depth Grids. (See Figure 2.)



Flood depths illustrate the Town of Islands' severity of flood risk from coastal flooding, including wave action. The depths reflect the difference between the wave crest elevation and the ground for the 1-percent-annual-chance (base) flood. Dark blue colors show deeper flood conditions; lighter blue colors show shallower flood conditions.

**Figure 2. Sample Coastal Depth Grid**

- The FIRM and FIS report become effective at the end of the 6-month compliance period. After that time, flood insurance is required for properties that are shown on the FIRM in an SFHA and that have a mortgage with a federally regulated or insured lender.

- The final FIRM is available at the local Community Map Repository and online through the FEMA Flood Map Service Center website:  
<http://msc.fema.gov/portal>.

## Mitigation Planning and Activities

- A key component of the FEMA Risk MAP program is its focus on helping communities identify ways to reduce flood risks.
- Resources that could assist community officials, residents, and other stakeholders with identifying options available for future mitigation projects are discussed in a FEMA publication titled [Integrating Hazard Mitigation Into Local Planning: Case Studies and Tools for Community Officials](#).



### Integrating Hazard Mitigation Into Local Planning

Case Studies and Tools for Community Officials

March 1, 2013



Additional hazard mitigation planning resources are accessible through [www.fema.gov/hazard-mitigation-planning-resources](http://www.fema.gov/hazard-mitigation-planning-resources).

## For More Information

To learn more about the coastal flood risk study process, please visit the FEMA Region IV Coastal Analysis and Mapping Web Portal: [www.southeastcoastalmaps.com/](http://www.southeastcoastalmaps.com/).

General questions regarding an in-progress coastal flood risk study can be addressed to the FEMA staff listed below.

- Christina Lindemer, Coastal Flood Risk Study Lead, [christina.lindemer@fema.dhs.gov](mailto:christina.lindemer@fema.dhs.gov)
- Mark A. Vieira, PTS Program Manager, [mark.vieira@fema.dhs.gov](mailto:mark.vieira@fema.dhs.gov)
- Henrietta Williams, State Outreach Lead for Florida and Mississippi, [henrietta.williams@fema.dhs.gov](mailto:henrietta.williams@fema.dhs.gov)
- Lynne Keating, State Outreach Lead for Alabama, Georgia, North Carolina, and South Carolina, [lynne.keating@fema.dhs.gov](mailto:lynne.keating@fema.dhs.gov)

Questions regarding coastal flood risk studies can also be posed to State and local community representatives. Contact information for FEMA, State, and local community representatives is available through the Coastal Study Contacts page on the Region IV Coastal Analysis and Mapping Web Portal:

[www.southeastcoastalmaps.com/Pages/coastal\\_contacts.aspx](http://www.southeastcoastalmaps.com/Pages/coastal_contacts.aspx).