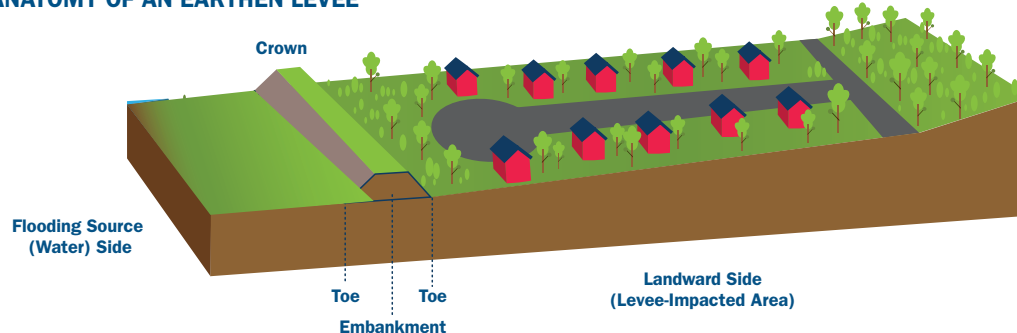


Stakeholder Engagement for FEMA Levee Analysis and Mapping Procedures of Non-Accredited Levee Systems

Tens of thousands of miles of levee systems exist in the U.S., near where millions of Americans live and work. The Federal Emergency Management Agency (FEMA) works with federal and state partners, local communities, and other stakeholders to identify and communicate flood risks in levee-impacted areas.

ANATOMY OF AN EARTHEN LEVEE



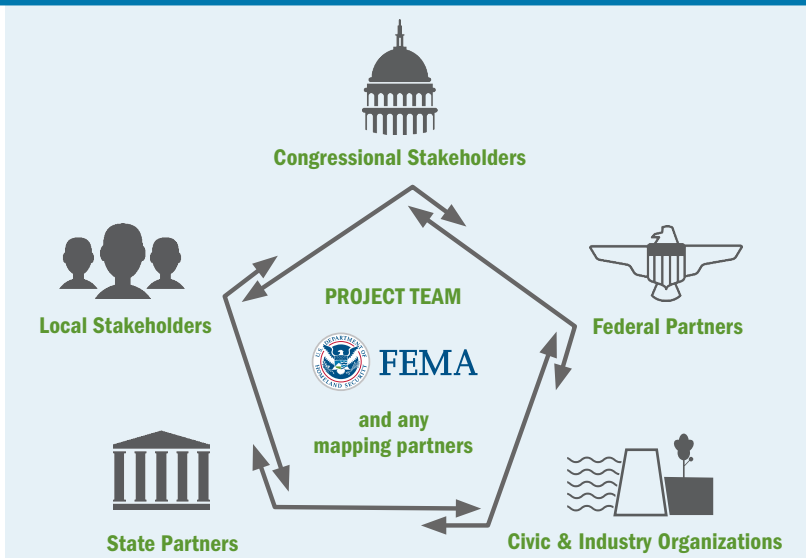
ROLES: SHARED RESPONSIBILITIES & LEVEE FLOOD RISK COMMUNICATIONS

While all parties share responsibility for flood risk communications, each has specific roles with regard to various levee systems:

	FEMA	U.S. ARMY CORPS OF ENGINEERS <i>(for certain levee systems)</i>	LOCAL LEVEE SYSTEMS OWNER/COMMUNITY
Levee Inspection		X	X
Operations & Maintenance		X	X
Flood Fighting		X	X
Levee System Evaluations		X	X
Levee Accreditation <i>(submission of information)</i>		X	X
Levee Accreditation <i>(approval of information)</i>	X		
Levee System Identification on FIRM	X		
Flood Insurance	X		X
Mitigation & Flood Risk Management	X	X	X
Emergency Preparedness	X	X	X
Sharing/managing data in the National Levee Database	X	X	X

1 INITIAL COMMUNITY INFORMATION COORDINATION

FEMA works with communities, state partners, federal partners (including the U.S. Army Corps of Engineers (USACE)), and local stakeholders to collect data needed for levee risk identification and flood hazard mapping.



EXAMPLES OF FEDERAL PARTNERS:



YEAR 1*

2 KICKOFF MEETING

FEMA meets with the levee sponsor, community officials, and other stakeholders to review the levee analysis and mapping project goals, the role of the Local Levee Partnership Team (LLPT), the data collected to date, and to collect additional local inputs and discuss the risk of flooding in levee-impacted areas.



COMMUNITY ACTION: Is there additional data FEMA should be considering at this point?



3 LLPT FORMATION

The LLPT is essential to the project's success. It provides local information and feedback and allows FEMA to make better-informed decisions. FEMA works with the local levee sponsor and impacted communities to identify LLPT participants. LLPT members will work with FEMA to review the flood risk and hazards and determine how to communicate and mitigate that risk and hazard.



COMMUNITY ACTION: The levee sponsor and/or community should help identify who should be on the LLPT.

4 FIRST LLPT MEETING

This meeting sets the stage for the mapping project and emphasizes two-way engagement and collaboration among the LLPT and FEMA. During this meeting, the LLPT has an opportunity to review the FEMA levee analysis and mapping procedures, provide feedback on what procedures are relevant to the levee, and clarify what data is required from the community and/or levee sponsor. It is also a chance to review the effective Flood Insurance Rate Map (FIRM) and discuss the project timeline.



The various levee analysis procedures that will be reviewed include the following:

- Sound Reach
- Freeboard Deficient
- Overtopping
- Structural-Based Inundation
- Natural Valley



COMMUNITY ACTION:

There are several goals of the initial LLPT meeting:

1. The ultimate goals of this meeting are for the community and FEMA to identify the most appropriate way to analyze and map the flood hazards for the levee-impacted areas, to determine whether the procedures chosen require additional data, and identify the timeline by which that data could be provided to FEMA.
2. Identify other community information, resources, or feedback to be considered in the project, such as new development in the community, any local hydraulic studies, and current mitigation projects already underway.
3. Based on the flood risk information known to date, identify what steps local officials could take to appropriately inform the public.

Stakeholder Engagement for FEMA Levee Analysis and Mapping Procedures of Non-Accredited Levee Systems

YEAR
2*

5

DATA COLLECTION AND ANALYSIS

After the first LLPT meeting, FEMA develops a plan that outlines the levee analysis and mapping procedures selected with input from the LLPT. The levee analysis and mapping plan addresses how flood hazards will be analyzed and mapped in levee-impacted areas, based on existing documentation and information. FEMA then performs the actual mapping analysis in accordance with the plan to produce draft maps.



ADDITIONAL
DATA
COLLECTION

6

DISCUSS RESULTS OF LEVEE ANALYSIS AND MAPPING PLAN

During this step, FEMA shares draft work maps showing flood hazards in levee-impacted areas with the LLPT and solicits input and feedback. This step can be a separate meeting with the LLPT and is also commonly referred to as a "Flood Risk Review Meeting." With support from FEMA and USACE, levee sponsors and community stakeholders can begin planning outreach to citizens to convey important risk and mitigation information, including:



- Flood hazards in levee-impacted areas and resulting flood insurance requirements;
- How residual risk may affect property owners and how they may reduce their risk; and
- What property owners need to know about existing emergency preparedness/action plans.

All levee-impacted areas have "residual risk, which can include:

- Floodwater exceeding the levee's designed level of flood hazard reduction
- The levee failing to perform as expected
- Inadequate interior drainage systems that result in flooding on the landward side of the levee
- Other interior flooding sources that may result in flood hazards in the levee-impacted area



COMMUNITY ACTION:

Provide feedback on the draft maps and determine what flood risk information should be conveyed to the community, based on the flood hazard information shown on the maps.

YEAR
3-5*

7

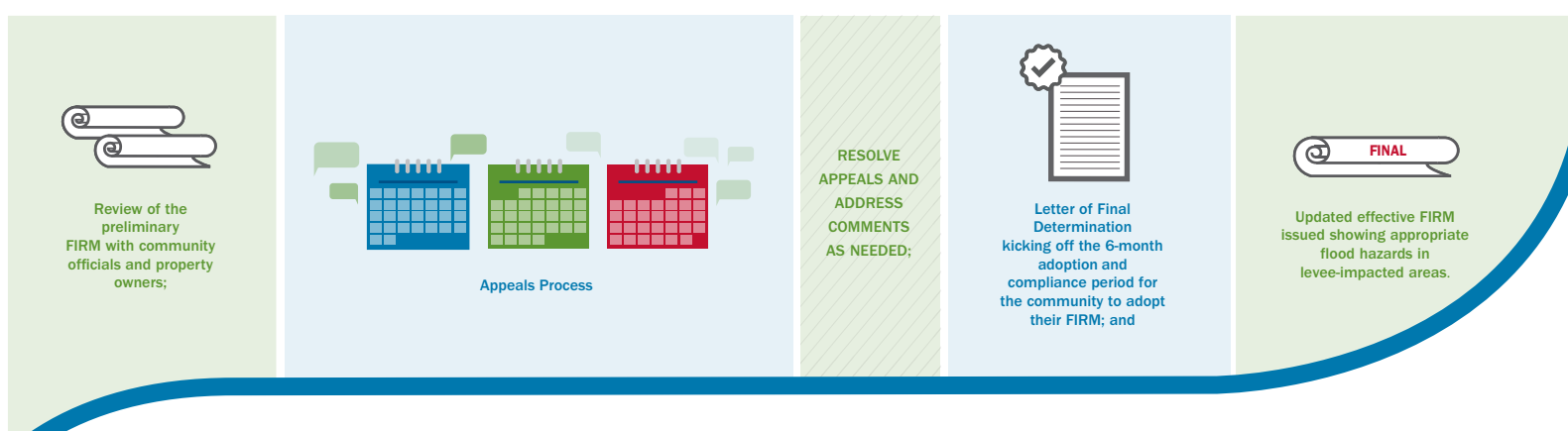
PRELIMINARY MAPS, FLOOD INSURANCE RATE MAP, AND THE REGULATORY PROCESS

Once complete, the levee analysis is integrated into a preliminary FIRM, which will go through the standard regulatory review adoption process. During this time, local engagement remains critical to helping citizens understand the flood risk and requirements they will face when the updated FIRM becomes effective. The regulatory process includes:



COMMUNITY ACTION:

Lead communications outreach to property owners.



8

BUILDING RESILIENCY

The updated FIRM helps communities better understand flood risks in levee-impacted areas and the resulting regulatory requirements for property owners in high-hazard areas. But, flood risks also exist in moderate- and minimal-hazard areas, and it is important to take action to mitigate these risks as well. FEMA and other stakeholders will work with the community to identify appropriate mitigation actions and communicate risk to the public.

FLOOD RISK MANAGEMENT: BUYING DOWN RISK

ALL STAKEHOLDERS CONTRIBUTE TO REDUCING RISK (STEPS ARE NOT PRESENTED IN SPECIFIC SEQUENCE)



This graphic shows different actions that can be taken to reduce your community's risk. As each action is taken and the more steps you take to reduce your risk, the better off your community will be. However, residual risk always remains, so it is important to understand your full risk and always be prepared for a flood.

* All times are approximate.

