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Introduction

Good day, Chairwoman Landrieu, Chairman Pryor, Ranking Member Graham, Ranking Member Ensign and Members of the Subcommittees. My name is Sandra Knight. I am the Deputy Administrator for Mitigation at the Federal Insurance and Mitigation Administration in the Department of Homeland Security's (DHS's) Federal Emergency Management Agency (FEMA). Thank you for this opportunity to discuss flood mapping and FEMA's role in helping communities identify and address their flood risks.

Each year, communities in every region of the country experience severe weather events that lead to flooding, cause damage, hurt the economy and, tragically, sometimes result in the loss of life.

That is why, in the National Flood Insurance Act of 1968, Congress mandated that FEMA identify and map flood risks across the country. By identifying these risks, we are helping communities and individuals make informed decisions on floodplain management and future development plans that will save property and protect lives.

By identifying these risks, we are also able to maintain a fair and accurate insurance rating mechanism for the National Flood Insurance Program (NFIP), a requirement of FEMA as the NFIP administrator.

Like any insurance program, the NFIP comes with a cost. And with the current economy, we understand that any new cost can be a burden for many homeowners. The cost of *inaction* could be far greater, however. It could mean property loss and more importantly, the loss of lives. Without NFIP, a property owner may receive as little as $29,900 in federal assistance to help recover, a sum that is insufficient in most cases.

So, my job here today is to address the concerns and answer the questions that many have raised about FEMA's flood mapping program.

Question 1: Why is flood mapping important?

Flood mapping is important because reliable information about risk is the first step in preventing and reducing flood losses. New and updated maps not only reflect better data on hydrology and topography, but also show changes in the watershed due to variations in weather patterns, changes in landscape due to physical processes, the impact of construction and development on drainage patterns, and the amount of community vulnerability to floods. It is the responsibility of FEMA, as the administrator of the NFIP, to identify and map flood risks in communities across the country so that it can establish and maintain a fair and accurate insurance rating mechanism for the NFIP.

For the 21,168 communities participating in the NFIP, flood maps fulfill other functions. Access to current flood risk data helps local leaders, community planners, builders and developers make important decisions about where and how new structures and developments should be built. Flood maps help emergency personnel and preparedness officials write mitigation and response plans that account for new and evolving flood challenges, and help home and business owners understand the potential impact that flooding can have on their property and make informed decisions about how to protect themselves. The maps also help individuals and communities take actions that reduce their flood risks, protect lives, and decrease damage to property.

Question 2: Why are we mapping now?

Congress requires that we map. In 2003, Congress began appropriating funds for FEMA to modernize and update the Nation's flood map inventory to reflect current flood risks.

This was and is a critically important mandate. In many communities, maps were out of date. In some cases they were 20 to 30 years old and did not accurately reflect current areas of development and the associated flood risks, which in turn hindered the ability of communities and businesses to make informed floodplain management and future development decisions.

The National Flood Insurance Act of 1968 required the NFIP to set premiums to pay for future expected losses, not past ones. Furthermore, Congress began providing substantial funding for FEMA's flood mapping modernization program in 2003 to address the shortfalls of long out-of-date maps and the limits of obsolete technology. Updated mapping is changing flood zone boundaries to reflect the best available data. As a result, special flood hazard areas have been updated to include many properties that were not previously designated as high risk. Because of this new information, millions of other properties are no longer designated as being in special flood hazard areas because flood risks are lower—in some cases due to mitigation measures, such as elevations or relocations that have been put in place.

At the close of fiscal year 2009, FEMA had issued modernized flood insurance rate maps in a preliminary format for over 80 percent of the nation's population in approximately 13,000 communities. Three quarters of these plans have now been finalized, covering more than 60 percent of the nation's population in about 7,700 communities. While we have seen an overall increase in the size of the Special Flood Hazard Area by roughly 7 percent nationwide, we have also seen an approximate 1 percent net decrease in the number of housing units located within SFHA.

Congress' substantial investment in updated flood maps is also addressing another crucial mitigation challenge. Flood risks are dynamic—they change over time. Water flow and drainage patterns change dramatically over the years due to surface erosion, development, land uses, and other natural forces. With these changes, the likelihood of flooding also changes. Prior to 2003, flood maps were static paper documents, limited in their detail, and hard to use and maintain. Flood maps must be dynamic, however: they need to be regularly updated and constantly maintained. That is why FEMA is committed to assessing the need to update maps at least once every five years, and updating those maps in which the flood hazard has changed.

Today's maps are digital and provide more detailed, reliable and useful data that can be updated more frequently and more cost-effectively. Using modern technology, digitized maps can be easily shared among homeowners, community decision-makers and other stakeholders – and in fact, Flood Insurance Rate Maps are accessed more than 30 million times every year. FEMA has over 1,000 county-wide mapping projects currently underway in every region of the nation. At the end of the map modernization effort, we will have produced modernized maps for more than 92 percent of the nation's population. As a result of this effort, we have a better picture of what areas are most likely to be impacted by flooding, a better foundation for hazard mitigation planning, and can apply these findings to effective community planning requirements.

Question 3: How do we do flood mapping?

Mapping the nation's flood hazards requires a process that incorporates a number of regimented stages of data collection, map development, and review to make sure that each product reflects the highest quality of information available to local communities and to FEMA.

While we are confident that the science we use to develop community maps is strong and sound, mapping flood risk is a dynamic process that requires regular updates to continue to reflect changes in risk levels. Any map is always a snapshot in time, and most require regular updates.

An exhaustive examination of every individual property in every community would, of course, be cost-prohibitive. FEMA received a $220 million appropriation this year to fund flood map updates. However, we estimated recently that a house-by house study in a state the size of New York would cost $800 million. Even if it was affordable, a house-by-house study would require

vast amounts of time, which would in turn prevent communities from finalizing and using the maps in a timely fashion.

FEMA does not create maps in a vacuum. Our specialists and engineers work directly with contractors and community officials to generate the preliminary products, which then undergo a meticulous community review. We also work directly with communities to manage specified timeframes for map review, appeals, and revisions. The appeals period is an especially important part of our process. As of the end of fiscal year 2009, FEMA had issued approximately 92,000 map panels and received 275 appeal packages. The vast majority of these appeals are in areas where FEMA is proposing increased flood hazards and many have been or will be resolved through community consultation. While we leverage input from local flood studies and experts, the review and input of property owners also ensures that the maps reflect the best information.

Our process also involves education and outreach to help ensure that community leaders and residents understand the process, what the maps mean, and their utility. Each time we roll out preliminary maps in communities—and right now there are more than 400 preliminary maps being processed—we issue public notifications about the maps, when they will become effective, and where citizens can learn more. Town halls are conducted to better explain what the new maps mean for residents and what they might require in terms of insurance protection.

Question 4: Why are people in floodplains required to purchase flood insurance?

The short answer is that it has been law since the 1973 Flood Disaster Protection Act, which directs that mortgage lenders require people in floodplains who have a federally backed mortgage to secure and maintain flood insurance. The NFIP provides an option for less expensive federally backed flood insurance. But it also relates to the NFIP's statutory responsibility to provide, "a reasonable method of sharing the risk of flood loss ..." Essentially, FEMA's flood maps and the NFIP provide mechanisms to better understand flood risk, and to reduce the costs of flooding events to property owners, renters, and the Federal government.

As new flood maps are adopted in communities across the country, one of the things that many individuals do not clearly understand is why flood insurance is typically required for properties located in a higher risk area, or Special Flood Hazard Area – especially when recent history does not include a flood.

Flooding has been and remains the most costly and prevalent natural risk to our nation, but flood insurance has not always been available or affordable. In fact, prior to the establishment of the NFIP, losses had historically been so consistent and costly that many private insurers would not provide protection—or could only do so through policies that most could not afford. The NFIP was created in 1968 to address this problem. By joining the NFIP and agreeing to adopt and enforce higher building and floodplain standards, residents could have access to less expensive federally backed flood insurance. Many property owners in high-risk areas are required by their lenders to carry flood insurance. The 1973 Flood Disaster Protection Act made it law for

federally regulated mortgage lenders to require flood insurance protection as a condition of loans on the nation's high-risk properties. The availability of insurance has substantially reduced the costs and increased the speed of recovery for those who are insured, and reduced costs to the federal government through a decreased reliance on Disaster Assistance funding.

We understand residents' concerns about having to take on the additional cost of flood insurance coverage, particularly during challenging economic times. The NFIP provides options for property owners to lower their cost of insurance when they are newly designated in high-risk areas. Property owners can save on their premiums through a provision that allows them to "grandfather" into a higher risk zone while taking advantage of a lower rate. Further, we are implementing a new policy on January 1st for communities adopting new maps that will extend the timeframe for property owners to purchase lower-cost, preferred risk policies. It is important to understand that the cost to carry a flood policy is modest when compared to out-of-pocket costs to repair or rebuild, which can be tens of thousands of dollars for even a few inches of water in a home.

It is also critically important to mention that, even when flood insurance is not required, it is more often than not still needed. This is a lesson we have learned in our many years of managing the program, and one that we consistently convey to citizens through our national outreach campaign, FloodSmart. A quarter of all flood claims that we process each year come from moderate and low-risk areas, and flood policies in these areas are affordable. In just moments, a flood can wipe out the personal and financial security that often takes years to build, so we encourage all property owners to talk to their insurance agents, discuss their risk and options and make sure they are protected.

Question 5: Why do levees need to be accredited?

A levee that is determined to be an effective defense against flooding must accurately depict the flood risk in the area on the flood map in order to be accredited. In other words, before we show the existence of a levee on a map, we need to know that the levee is capable of doing what a levee is supposed to do.

There are thousands of miles of levees in the United States. They are designed and constructed to provide a last line of defense for people and properties against major coastal and river flooding events. Accurately depicting flood hazards near levees on flood maps is critical to ensuring the public is aware of the unique flood risks associated with levees so they are armed with facts that will allow them to reduce their risk.

Levees are designed to provide a specific level of protection, and this must be certified, as outlined in 1986 FEMA regulations. And even for the majority of levees that meet FEMA's standard to provide protection against a one-percent annual chance flood, it is our duty to inform people that there is still a possibility of a larger flood overtopping the levee, or causing the levee

to fail. Homeowners and communities must be aware of what protection they get—and do not get—from a levee.

FEMA's levee-related responsibilities are spelled out in Title 44 of the Code of Federal Regulations Section 65.10. FEMA establishes risk zone determinations in areas behind levees and reflects those determinations on NFIP flood maps, and establishes mapping standards and accredits levees that have been shown to provide protection against the one-percent annual chance flood. To carry out our responsibilities, we rely on levee owners to provide the information we need to clearly represent the flood risks in areas behind levees.

FEMA, along with other federal government agencies, states, communities and private levee owners all have designated roles in the maintenance and certification of levees. While FEMA establishes the criteria to give a levee credit for providing flood protection on our Flood Insurance Rate Maps, we do not certify levees. The levee owner—whether a local government, Federal agency, or private organization—has responsibility for maintaining the levee and providing documentation to show that it is certified. FEMA also does not design, operate, examine, evaluate or maintain levee systems, nor does the agency determine how a structure or system will perform in a flood event.

Many factors can affect a levee's ability to meet the one-percent standard. Levees are man-made and most are earthen embankments subject to decay and deterioration over time. Regular maintenance and periodic upgrades are needed to ensure they can perform to their design standard and meet accreditation criteria.

We also understand that a levee's condition is not always fully documented, and that communities may need additional time to document a levee's condition than is normally available during the flood mapping process. While FEMA does not have the funding or authority to manage this process on behalf of levee owners, we do have programs in place, such as the Provisionally Accredited Levee designation, to facilitate the certification process for communities whose levees are reasonably expected to meet certification criteria, and provide additional time for communities to gather necessary documentation for certification.

Conclusion

FEMA and the NFIP are working diligently with our federal, state, and local partners to update flood maps nationwide and address the concerns of communities. We will continue working with all of our stakeholders to analyze and identify flood risks, produce useful and informative flood maps, and communicate the true and current flood hazards for Americans where they live, work and play. We have both a legal and moral responsibility to depict that risk accurately and we are committed to meeting those responsibilities.

I look forward to answering any questions you may have.