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TESTIMONY

Association of State Floodplain Managers, Inc.

before the

House Transportation and Infrastructure Subcommittee on Economic Development,
Public Buildings and Emergency Management

National Floodplain Remapping: The Practical Impact

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Background

The Association of State Floodplain Managers (ASFPM) envisions a number of key legislative policy changes to strengthen the nation's programs to reduce flood losses. Today we focus on programs of the U.S. Army Corps of Engineers and the Federal Emergency Management Agency that were established by Congress to reduce future loss of lives and property due to flooding. We appreciate the opportunity to discuss those with you today.

ASFPM and its 26 Chapters represent over 11,000 state and local officials and other professionals who are engaged in all aspects of floodplain management and hazard mitigation. These include land management, mapping, engineering, planning, building codes and permits, community development, hydrology, forecasting, emergency response, water resources and insurance. Many of our members work for or with communities struggling to reduce their losses from flooding. To do that effectively communities need maps that accurately depict flood risk. All ASFPM members are concerned with working to reduce our nation's flood-related losses. Our state and local officials are the federal government's partners in implementing programs and working to achieve effectiveness in meeting our shared objectives. For more information about the Association, please visit <http://www.floods.org>.

The recent tragedies on most of the Gulf Coast and the major riverine flooding are reminders that we are very susceptible to natural hazards – especially flooding (the costliest natural disaster in the U.S) – and that we must have programs, policies and institutions that can adequately handle these events, efficiently use taxpayer money, and build a more sustainable future. Nothing less than our nation's prosperity and economic security are at stake. The Congress and this Committee are at the center of this discussion with an opportunity to make policy changes that can have importance and relevance far into the future.

Some Historical Perspective

While the devastation in the Gulf Coast from Katrina-Rita-Wilma was unprecedented in recent US History, the history in our nation and the world provide ample evidence that large natural disasters occur frequently and with a vengeance. Whether we are discussing tsunamis, hurricanes, floods, wildfires, or earthquakes, natural hazards remain a primary force that can bring about catastrophic consequences to every region and state in the United States.

All of us will contribute our tax dollars to disaster recovery relief from natural disasters and to the rebuilding of flooded areas. We must build and rebuild in a way that reduces the risk of loss due to flooding and hurricanes in the future, and the human suffering that follows. It also makes sense to invest taxpayer dollars for accurate flood maps so communities can reduce flood damage exposure to the taxpayers.

The nation has ignored critical infrastructure, including levees, for years. Some forget that infrastructure includes levees, just as it includes roads, bridges and water and sewer facilities. The purpose of levees is to provide basic public

safety, which is a primary function of local and state governments. While levees provide protection for some floods, when they fail or overtop, the consequences are usually catastrophic and the costs are often picked up by the taxpayers.

In the past several decades, the Federal government has been shouldering an increasingly larger share of the cost for flood control infrastructure. Yet, operations and maintenance of these systems is a non-federal responsibility – even for those built with federal funds. With the convergence of the aging infrastructure, mapping and remapping flood risk areas, and the demographic shift to coastal and floodprone lands, it is imperative that states and communities bear a portion of these costs.

Recommendations

The specific recommendations ASFPM is making to the Committee are:

1. Mapping the true flood hazard is critically important to public safety. FEMA produces flood hazard maps for 20,000 communities in the nation. These maps are the basic tool these communities need to guide development and re-development to be safer from flooding. These maps are also used by communities to analyze how to mitigate at-risk structures so that damages from the next flood are reduced. FEMA is in the middle of an ambitious and important effort to modernize and update the nation's flood maps. Prior to the Map Modernization Initiative, most of the maps were actually 10-20 years old. Watershed development activity and natural phenomena change flood risk, so mapping must be continually updated to reflect true flood risk.

Due to the flood map modernization program, there has been an effort made to reflect the true risk of areas protected by flood control structures (levees, etc.). This effort has already had significant impacts nationwide. From the Natomas basin in California to the National Mall in Washington D.C., flood maps are being updated to reflect the true flood risk and are forcing us as a nation to identify how we want to proceed with the development and habitation of our country's flood prone areas. In most cases, it is not a single solution; rather, a multi-pronged approach. As communities are mapped, FEMA is looking closely at all levees to ensure they will provide the level of protection they were designed for, and to determine whether or not they meet the standards for protection from the 100 year flood. If they do not meet the standards, the area behind (or "protected") by the levee is mapped as a flood hazard area, which is the true risk.

This true risk mapping is very important, so citizens and communities are aware of their risk, and can take actions to reduce that risk. Those actions may include strengthening the levee, elevating or relocating structures or other mitigation measures. The Corps of Engineers is an active partner in this mapping process, especially where levees exist. In most areas, the Corps is the entity which will evaluate whether or not the levee meets the criteria for 100 year protection. Furthermore, the Corps is developing an inventory of all the levees in the nation--critical information we have not had to assist us in managing and reducing flood

impacts. That inventory should provide us with the location and ownership of all levees, the number of miles of levees we have in the nation, and information on the general condition of all levees. With this, we will know the size of the levee problem so we can start to formulate solutions.

2. The nation needs a National Levee Safety Program. The WRDA bill that Congress just passed directed the USACE to establish a National Levee Safety Committee made up of Federal/State/Regional/local and private experts who would recommend how such a Levee Safety Program should be governed and structured. The bill indicated the program should provide for delegation to the states, and should include incentives and disincentives for state involvement. That effort is just underway, and recommendations to Congress for program governance should come soon, enabling all of you to decide the future of this key program. I do want to mention that the expectation is that the Levee Safety Program will not mirror the Dam Safety Program, which has not built state and local capability.

3. The nation needs an integrated and unified federal/state/local approach to managing flood losses, including levees. Flood losses and disasters can not be successfully managed and reduced by any single level of government or the private sector. It will take a unified program involving them all. While significant federal funding has flowed to flood projects and especially to disaster relief after flooding, the major tools to reduce flood risk lie in land use and building codes, areas in which the federal government has no authority under our Constitution. Those actions are the purview of State and local governments. The private sector has an increasing awareness of their role when making business decisions - incorporating location and flood mitigation actions. Flooded facilities interrupt business even if the business is not flooded. If workers cannot get to work, or suppliers cannot provide inventory, businesses may have to close for weeks or months, incurring major losses or going out of business.

Numerous federal agencies deal with levees with different programs in different ways. The Corps of Engineers and NRCS build levees for different purposes with different guidelines. FEMA produces flood maps for 20,000 communities in the nation, many of which have levees. How to determine if those levees are adequate, and how to map the areas behind those levees must be done by integrating the programs of all federal agencies along with state and local partners who either build or operate and maintain thousands of miles of levees.

ASFPM applauds the efforts of USACE and FEMA over the past 3 years to work together to integrate their programs and policies. This level of federal coordination has not existed since the Federal Interagency Floodplain Management Task Force was active. It met regularly to discuss actions of each of the 26 federal agencies having an impact on flooding. The Task Force periodically issued updates of a report called the "Unified National Floodplain Management Program". I urge this committee to encourage FEMA and USACE

to re-establish this effort, and to engage all the appropriate federal agencies in implementing integrated policies that will reduce the nation's flood damages and suffering.

4. Adequate Operation and Maintenance (O&M) of levees is a critical requirement of levee certification. Once a levee is built, proper O&M of that levee must be done, just as it is done with bridges, roads and water supply. While there are many levees that were not designed and built to safe engineering standards, there are also far too many levees that may have been built adequately at the time, but which have not been properly maintained over the years. No engineer, either Corps of Engineers staff or private engineer will certify a levee as adequate if it cannot be determined that it was properly designed and constructed, or is properly maintained. The Corps of Engineers has developed proper guidance for inspecting and certifying levees that the engineering profession uses. Legal experts have informed us that levee owners will almost always be liable for damages should a levee fail, thus pointing out the importance of the efforts of FEMA to map levee residual risk areas and of the Corps of engineers to properly inspect and evaluate and to certify levees only when all safety standards are met.

5. Levees provide a “false sense of security”, impeding personal responsibility. Most people who live or work behind a levee believe they are protected from all flood events. A levee only “buys down” a portion of the flood risk. Those who believe they are protected by structural works and hence think they are not at risk need to know they are and that there are other measures to protect lives and property and provide financial security. Hundreds of thousands of properties exist in residual risk areas behind levees, below dams or in storm surge areas. These measures include the purchase of flood insurance and elevating or relocating structures. To protect lives, proper evacuation plans should be developed by communities and each family.

Not only will this protect individuals, it will protect communities and the nation's taxpayers from the consequence of catastrophic damages when those flood control structures fail or are overtopped from larger events. The mitigation and insurance measures need not be expensive, because even small measures and amounts reduce the pool of damages and claims. In addition, a small annual “preferred risk” insurance premium (\$120-300/year) provides those property owners with yearly evidence and awareness that they are actually subject to flood risk

6. The flood maps are out and show the levees are not adequate – now what? In the flood mapping process FEMA and the Corps work together to show the true flood hazard, including whether any levee involved is adequate. When it is not, the area behind that levee will now be shown as a flood hazard area. **Where flood maps show levees not being adequate, mechanisms need to be implemented to systematically identify options.** While there may be many different options on how a community should proceed, they are often not known or poorly understood by the community.

- a. **Technical assistance to communities and states.** Communities with levees need technical assistance to help determine: 1) Is their levee safe; 2) how to properly operate and maintain that levee; and 3) how to develop and analyze the various structural and non-structural options in the event their levee is not certified as adequate. The Corps of Engineers has two programs which provide technical assistance to communities and states (these are small but important programs of technical assistance, outside the Corps' "water resources projects" program) **Flood Plain Management Services** is currently authorized at \$15 million and Planning Assistance to States (PAS) is authorized at \$10 million. Both programs have been consistently under funded, severely limiting the ability of the Corps to provide locals and states this needed technical assistance. ASFPM recommends that the Committee not only urge the Appropriations Committee to fully fund these programs, but that the Committee significantly increase the base authorizations for both programs. These programs offer the counties and communities of the nation the opportunity to benefit from Corps expertise in developing "bottom up" solutions to their flood loss mitigation issues. Local jurisdictions need the technical assistance provided by Corps expertise, not only for major structural projects, but to develop non-structural or integrated structural and non-structural remedies as redevelopment takes place.
- b. **A robust toolbox of options for flood mitigation.** When a levee has been decertified, the options for the community include rebuilding and upgrading the levee, or using the existing levee for protection from some flooding events, in combination with flood insurance and elevation or relocation of new and improved structures. Levees that are set back from the river or coast can be smaller and less costly, while providing room for natural flooding to occur without adverse impacts. Grand Forks, ND is a community that used this levee set back approach successfully. FEMA has a number of mitigation cost sharing programs for non-structural mitigation options that many communities utilize.
- c. **Funding for levee improvements and mitigation**
Funding to rebuild levees may come from a variety of sources. The historical means has been through the Corps of Engineers Water Resource Project authority. This process takes years, appropriately requires a non-federal cost share and is increasingly difficult as the federal budgets become tighter. Funding can also come entirely from local/state or private sources, with the Corps and FEMA approving the design and construction, as well as the O&M plan for the levee.

A key to encouraging local and state investment in levee upgrades is to provide incentives for them. Those incentives should increase (sliding cost share) as the level of protection and mitigation efforts at the local and

state level increase. Congress might consider allowing communities to “bank” all or part of proper mitigation activities against the non-federal share of the next disaster in their area.

If Congress is seeking means to stimulate the economy while improving public safety, investment in infrastructure creates jobs, protects health and safety of families and lays the foundation for economic expansion of the generations that follow us. This nation will be one of the fastest growing nations in the world over the next 50 years, with heavy development pressure in many high risk flood hazard areas. Providing the necessary guidance and policy framework to reduce the potentially huge increases in flood damages and catastrophic disaster costs is critical to our economic and social survival.

An added potential source of funding is through private investment funds. I was recently approached by such an investment fund that has experience in providing funding for infrastructure work for communities. This kind of creative financing option has real potential and needs further exploration.

FEMA has a number of disaster mitigation programs which could be better utilized to address a community’s flood mitigation needs. Access to the mitigation programs requires that localities develop a disaster mitigation plan. States and communities could be encouraged to include infrastructure repairs and improvements in their mitigation plans.

Other Related Recommendations

- 1. Federal monies should not place people and structures at risk, nor contribute to the increased flood risk of structures and people.** Many agencies will spend billions in taxpayer monies for efforts to rebuild the Gulf coast. This includes the Corps of Engineers, FEMA, HUD, EDA, EPA and DOT. It is imperative those agencies do not increase flood risk, or cause flood risk to be increased through their actions. Federal Executive Order # 11988 directs all federal agencies to analyze their actions to avoid increasing flood risk by their actions to build, finance or provide technical assistance. We urge this Subcommittee to conduct oversight of each program authorization to assure compliance with this Executive Order.

Conclusion

Indeed, the United States is already lagging behind. The Dutch have been serious for some time now emphasizing high protection levels for urban areas and at the same time implementing a “Room for Rivers” policy of allowing the floodplain to function naturally. More recently the State of California is taking steps to address “deep floodplain” areas behind levees and recognizing that 100-year flood protection is inadequate for developed, urbanized areas. As a nation, we must do better.

The ASFPM represents the federal government’s state and local partners in the continuing quest to reduce flood damages and disasters. Today, we once again stand at a crossroads---in the aftermath of a catastrophic flood disaster and in the face of flood maps showing the true flood hazard, with an opportunity for all of us to work together to refine national flood policy that will serve the nation for decades to come. Thank you for the opportunity to provide the wisdom and expertise of our members on these important issues. The ASFPM and our members look forward to working with you as we move toward the common goal of reducing the cost and suffering from flood disasters.

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