TESTIMONY

Association of State Floodplain Managers, Inc.

before the Senate Committee on Environment and Public Works

Subcommittee on Transportation and Infrastructure

Water Resources Needs and the President’s Budget Proposal for the Army Corps of Engineers for Fiscal Year 2008

Presented by:

Pamela Mayer Pogue, CFM, Chair
State of Rhode Island
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INTRODUCTION
The catastrophic events of 2005 affecting most of the Gulf Coast and the increasing flood damage elsewhere in the nation are reminders to the nation that we are susceptible to natural hazards – especially flooding – 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 viability are at stake. The Congress and this Committee will be at the epicenter of this discussion, with an opportunity to make policy changes that can have importance and relevance far into the future.

The Association of State Floodplain Managers, Inc. (ASFPM), and its 25 Chapters represent over 9,000 state and local officials and other professionals who are engaged in all aspects of flood loss reduction and floodplain management and hazard mitigation, including management, mapping, engineering, planning, community development, hydrology, forecasting, emergency response, water resources projects, and insurance. Many of our members work with communities impacted by hurricanes Katrina, Rita and Wilma; or work with organizations that are assisting those communities in rebuilding. All ASFPM members are concerned with reducing 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 of reducing the suffering and costs associated with flooding. For more information on the Association, please visit http://www.floods.org.

ASFPM has been involved in numerous national policy dialogues with partner organizations in the past year. These have included the Flood Risk Policy Summit involving 60 experts from many different groups such as homebuilder, realtors, lenders, environmental organizations, academia and others. We co-sponsored this Summit with the National Association of Flood and Stormwater Management Agencies (NAFSMA), with strong support from the Corps of Engineers and FEMA. We also participated in the American Water Resources Association’s National Water Policy Dialogue; and held discussions with the leadership of numerous agencies, the White House and Congressional staff, researchers and others.

ASFPM appreciates the leadership of this Committee, under the strong leadership of the Chair, Senator Boxer. The ASFPM also appreciates the important contributions made by Senators Russ Feingold and John McCain and a number of members of the Senate Environment and Public Works Committee to start to address the need to modernize the Corps planning process and to address issues raised by the systemic failures identified in the wake of Hurricanes Katrina and Rita. We look forward to working with you to develop a more
A. Changing how the Nation Manages Flood Risk—The Federal/State/Local Partnership

An overarching and critical issue to all our efforts as we work to change policies that led to the catastrophic consequences from program failures in Hurricane Katrina—is the understanding we need to change the nation's top-down model of flood risk management. One concept that is receiving more and more support in these discussions is to design the system to have states become the focal point for managing flood risk. The logic behind this is that in order to more effectively manage and reduce flood risk we must rely on authorities that are reserved to the states under our Constitution, namely land use management, building codes, and community planning for development, mitigation, and resource protection.

A number of principles necessary for improved flood risk management have emerged, which this testimony will address:

- Flood protection provided by levees is a double-edged sword, providing significant protection, but also leading to severe flood impacts when levees fail or are overtopped. Wise flood risk management must include use of a menu of floodplain management options and cross integration of those options.

- The nation is urgently in need of data showing where levees exist, their condition and the population and critical facilities at risk behind those levees.
• An effective levee safety program must be developed, building off the land use authorities of the states. Incentives and disincentives for states must be incorporated to foster action.

• The need to periodically update and modernize the planning Principles and Guidelines and other critical guidance that is used to plan and implement water resources development projects.

• Integrated watershed planning for water resources projects is essential for effective flood risk management. -- To accomplish this, states must be encouraged to play an integral role through a system of incentives using cost-shares and discounts.

• The Army Corps of Engineers can play a key role in fostering watershed and "bottom up" project development by providing states and local jurisdictions with technical assistance and consensus building assistance. (See the related budget discussion on page 11)

• For Corps projects, we must agree on a process for independent review of some projects that will help insure tax dollars are spent on appropriate, cost effective projects that reflect the true federal interest.

Why aren't states and locals doing more to manage flood risk? What factors would encourage or induce states to step up to the plate? This is a critical part of the ongoing discussion. For the past 70 years, starting with the 1936 Flood Control Act through the 1968 National Flood Insurance Program Act and its reforms, along with various versions of the Disaster Relief Act, those national programs and policies have led state legislatures, Governors and local decision makers to believe that flooding is the problem of the federal government. Over the decades this has resulted in many states and locals putting little or no resources or effort into reducing flood risk, believing the federal government would bail them out after flood events. There are few incentives or disincentives for states and locals to take action on their responsibility to reduce flood risk.

What is the appropriate model to devolve flood risk and floodplain management programs to the states? Almost none of the current federal flood risk programs are delegated to the states, and that includes water resource development programs, the NFIP, and flood mitigation. Many of these programs have some state involvement or some contractual arrangement with states, but do not delegate authority or decision making to the states. Few governors or legislatures are interested in those non-delegated approaches, and they continue
to view such efforts as federal programs, and with federal disaster assistance as a backdrop removing the need for state or local priorities or leadership. Models of programs that actually delegate authority for decision making and funding to states include the Clean Water Act and the federal highway programs. Under these models, the state works with federal programs to reach agreement on the state-specific goals of the program, then designs the state program to achieve those goals. The program is not delegated to a state until appropriate state laws and capabilities are in place. The federal program then has oversight and auditing functions to ensure the goals are being met, and can and does withhold federal funds if the state does not uphold its end of the agreement.

What incentives might be most effective? ASFPM has long advocated that federal programs use a sliding cost share to reward positive state and local actions. A sliding cost share could apply to disaster assistance payments, which might keep the 75 federal/25 state/local as a base, but the federal share could increase as states undertake more and more actions that will reduce their risk to flooding and other natural hazards. This is cost effective for the federal government since it reduces federal disaster assistance from many programs. The same sliding cost share approach could apply to water resources and flood mitigation projects. Another approach would be that, when states invest in important flood risk activities, such as flood mapping, that amount of money could be “banked” toward the non-federal share of the next disaster. In this way, state legislators and governors can see the benefit of a “pay now or pay later” scenario, and in the meantime their citizens are safer, suffer fewer flood losses and trauma, and future disasters are reduced. As a start, the sliding cost share could be linked to the Community Rating System (CRS) used in the National Flood Insurance Program (NFIP). The CRS program has a list of 18 activities a state or community can undertake that go beyond national minimum standards that will all further flood loss reduction. Certain points are given for each activity, and the number of total points determines how much incentive is given for discounted rates. In that way, the federal, state and local governments will be integrating their actions to reduce losses, and we will be rewarding those states and communities who do more, instead of the current system that provides more federal money to those states and communities who do less to reduce flood risk.

B. The History of Levees in the Nation—How we got in this predicament

Levees have existed in this nation since early times. Those early levees were simply mounds of dirt thrown up by farmers or property owners to prevent frequent flooding of their property or crops. Most of the population lived near rivers or the coast, since waterways were our highways and the rivers were our source of water for human and livestock consumption. The federal government got into the levee business in an
organized way when Congress asked the Corps to become involved in the levees in Sacramento in 1917. The Flood Control Act of 1936 provided authority for the Corps of Engineers to be the lead agency on Flood Control projects in the nation. That authority has been used extensively for structural projects such as levees, dams and channelization, which modify our natural waterway systems to accommodate human needs. While the Corps has authority to also perform non-structural projects such as elevation or relocation of at risk buildings, the vast majority of projects have been structural. The evolution of responsibility for flooding and its consequences that has focused on federal structural projects has led states and communities to view flooding as a federal problem, not a state and local problem. It is important all federal legislation on levees and disaster assistance establish a shared responsibility for damages when a levee fails, and for implementing a levee safety and flood mitigation approach.

Thousands of miles of levees have been constructed by the Corps, most with a non-federal sponsor that provides cost sharing for construction and accepts responsibility for operation and maintenance. The location of those levees is known to the Corps, although many of them may not be in a geo-spatial database. Many other levees have been constructed by communities or private individuals or levee groups. We know where some of these are, especially those who apply for and participation in the Corps PL 84-99 rehabilitation program, which allows federal money to be used to reconstruct the levees after failure or damage from a storm event. Many private levees were built to protect farmland from frequent flooding in order to make it economic to crop the land. Over time, development of homes or other buildings has taken place in that area which would be inundated if those levees overtop or fail. Many of the property owners behind those levees may not even be aware the levee “protecting” them is poor and likely to fail.

Levees have been built to various heights to contain storms of various frequencies. In the early years levees may have been built to contain the Probable maximum flood, the 500 or 200 year flood, etc. In the past few decades most levees have been “dumbed down” to only contain the 1% chance flood (100 year flood). That is an unintended consequence of combining the Corps NED policies with FEMA’s policy for the flood insurance where areas protected by the 100 year flood are not required to carry flood insurance or be subject to any land use regulations for protection from flooding. Mapping those residual risk areas and requiring flood insurance in them is essential. Levee standards for protection on urbanized areas and critical facilities like hospitals, emergency operation and shelters must be protected to at least the 0.2% (500 year) flood event and in coastal areas a category 5 storm surge.
C. Consequences to a Nation Lacking a Comprehensive Approach to Levee Safety

We do not know the amount of population or structures at risk behind levees that would suffer damages or loss of life when those levees overtop or fail. We have no data on the population behind most of the levees in the nation, let alone how many of those people would be able to evacuate in the event that levee or floodwall overtops or fails during a storm event. Damage data on the cost of the structures or the infrastructure in those levee or floodwall inundation areas is needed in order to assess the exposure of the Disaster programs for both property damage and infrastructure.

What is the risk associated with each levee? Risk is determined by multiplying the probability of failure of the levee or floodwall times the consequences when that levee fails. Which of our levees is high risk, moderate risk or low risk? We need all these answers in order to proceed wisely.

Based on the data that a well designed levee inventory would produce, Congress can ask the agencies to design levee safety programs that would prioritize the nation’s efforts to protect people and property. Without that data the size of the problem and costs of future events like Katrina-Rita are not known. To start fixing the problem before we know the magnitude or cost does not seem to be an efficient use of taxpayer dollars.

D. The Need for Data Showing Where Levees Exist and the Population at Risk Behind Levees

Levees can be grouped in 4 categories:

1. Federally built and operated
2. Federally built and locally maintained
3. Locally built and locally maintained
4. Privately built and hopefully maintained

Information on Corp of Engineers constructed levees (category 1) is now being gathered in a geo-spatial database that can provide cumulative data such as miles of levee, condition of the levees, etc. That did not previously exist, and that data for the other classes of levees is more problematic, with data on even the location of private levees being almost non-existent.

Data on the adequacy of the levee for (1) hydraulic capability (height to contain a certain level of storm) (2)
structural stability (is it geo-technically sound and structurally stable) is similar to the above. Data on the population at risk when the levee overtops or floods or the cost of the structures and infrastructure likely to be damaged is also not known to any reasonable extent. The concern is that without this data, the Congress, the agencies, the states and communities or the public has any idea of the magnitude of the problem.

ASFPM surveyed the states to determine if states had an inventory of levees in their state. Only two states have a geospatial data base of their levees, and less than a dozen have even a listing of levees within their states. Other data indicates less than half of the states have implemented their authority to regulate levee design, construction or maintenance of levees.

E. Overarching Suggestions for Reducing Future Flood Damages Caused when Levees Fail- Key Provisions of any National Levee Inventory and Safety Program

Some basic principles should be included in addressing the levee problem in the nation. Those include:

1. Congress should decide if this bill should focus first on an inventory of levees so that we have enough data to determine the magnitude and potential solutions to the problem. Subsequent legislation could then design a levee safety program based on the data. We recommend you consider this approach.

2. The federal government (Corps of Engineers as lead) should develop the initial levee inventory in cooperation with states, which must collaborate with local and regional entities in their state.

3. Any long term levee program must use the states as a focal point. States are the only entity that has authority to regulate the design, construction, operation and maintenance of levees. The federal government can encourage those things and offer incentives, but cannot mandate it.

4. Incentives must be built into the program to encourage states to undertake levee safety programs in conjunction with their regional and local governments. Monies states spend on effective levee safety programs will result in reduced federal tax spending for disaster relief. Thus, incentives could consider that appropriate state expenses could be banked against the non federal share of future disaster costs in that state.

5. Guidance must be developed that establishes criteria and definitions for high, moderate and low risk
levees in order to set priorities for the assessment and future mitigation actions.

6. The federal government should not be performing detailed engineering analysis of levees or designing engineering remedies for non-federal levees. That is the function of levee owners and sponsors.

7. The levee inventory and any follow up assessment and levee safety program must be clearly coordinated with related mitigation programs of the Corps of Engineers and other federal agencies such as FEMA, NRCS, Bureau of Reclamation, etc. and especially with the flood mapping programs of FEMA. Additionally this program must be done in collaboration with state programs, which in turn must involve regional and local related programs.

8. Federal and State policy groups and Boards must be charged with recommending appropriate levee standards for various levees in the nation. Those standards must be improved to use 500 year levees for protecting urban areas and critical facilities. This moves from the current 1% (100 year) standard generally used, which is inadequate for protecting highly urbanized areas or for critical facilities like hospitals, drinking water, fire stations, etc.

9. ASFPM finds that future flood losses can be reduced if levees are never used to protect undeveloped land. Levees may be a viable last resort option for mitigating damages to existing urbanized areas if properly designed, constructed, operated and maintained, but only if proper warning and evacuation procedures can assure protection of lives for those living at risk behind those levees.

F. Measures To Improve Effectiveness of the Policy Nexus between Corps of Engineers and FEMA programs

There are a number of places where policies of the Corps and FEMA intersect. As explained above in the discussion of levee risk, sometimes those policy nexus results in unintended negative consequences. In addition to those mentioned above, the following suggestions come from the Flood Risk Policy Summit this past December involving many experts representing various interests:

- Public safety must become a default standard in determining the design of and priorities for flood mitigation projects above and beyond the benefit/cost analysis and any other objectives in the NED or Principles and Guidelines. We cannot in good conscious be designing and building
flood mitigation projects with federal tax dollars that result in (avoidable) loss of life.

  - **Levees must be designed to protect urban areas and critical facilities to the 500 year flood**

- **Federal monies should not place people and structures at risk, nor contribute to the increased flood risk of other structures and people.** Many agencies will spend billions of taxpayer’s monies in our 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 transferred to others through their actions. Federal Executive Order #11988 directs all federal agencies to analyze their actions to avoid increasing flood risk as they assist to build, finance or provide technical assistance. We urge this Subcommittee to condition each program authorization on compliance with this Executive Order.

- **Operation and Maintenance of flood control structures must be ensured through strong federal and state oversight.** No federal assistance for flood control structures should be provided without upfront assurance of financial capability for ongoing O&M of the structure.

- **The O&M requirements of the PL 84-99 program must be tied to the criteria for certifying levees under FEMA's flood mapping program.**

- **Identify residual risk structures and lands that will be flooded when levees fail or overtop; and require flood insurance for structures in those areas.**

- **Integrate planning and program requirements for flood mitigation and water resource planning and projects between the two agencies, using holistic, watershed approaches.**

- **Require a level of protection commensurate with the risk** in the Corps and FEMA programs the map and manage flood risk, especially for flood control structures where the consequence of failure is catastrophic.

- **Flood control structures should not be built with federal dollars in communities which do not join the National Flood Insurance Program, nor should those communities be eligible for federal disaster assistance for damage to public infrastructure.**
• Levees should be considered an option of last resort and used only to protect existing communities. Levees should not be used to protect undeveloped land with the speculation new development will be placed at risk behind those levees.

G. Budget Priorities for Corps of Engineers Programs for FY 08

Two relatively small programs of the Corps of Engineers Civil Works Program have nationwide benefits – these are the Floodplain Management Services Program (FPMS) and Planning Assistance to States Program (PAS). The 2007 budget request for these programs is $5.6 million and $4.5 million respectively. These amounts represent a decrease or hold in these programs. Sadly they fall far short of the authorized level for these programs and will not allow the Corps to apply them in appropriate and innovative ways to assist with recovery needs in the Gulf Coast region and throughout the nation. ASFPM respectfully requests funding to the full authorized levels to meet the current and anticipated demand for these programs.

Overall, the Association of State Floodplain Managers is disappointed with the budget request for the FPMS and PAS programs. We particularly note that two events have reinforced the need for these programs – Hurricanes Katrina / Rita, where numerous levees failed and the efforts to modernize the nation’s flood maps. Combined, these events have shown where FPMS and PAS could be critically important – through assessing the protection level of levees, and ultimately the risk of flooding behind levees, and use that data to support accurate flood maps nationwide. Communities who face the threat of having their levees decertified need technical assistance to explore their flood mitigation options related to those levees. The FPMS program provides support and the ability of Corps staff to travel to and assist those communities. However, proposed funding levels will not even meet current needs expressed by states and communities for technical assistance from the Corps.

►►The best hope for providing technical assistance to communities with levees that must be certified for flood mapping and compliance with Operation and Maintenance (O&M) criteria rests with adequately funding the FPMS and PAS programs.

FLOODPLAIN MANAGEMENT SERVICES PROGRAM

The Corps of Engineers Flood Plain Management Services Program is a Continuing Authority program authorized under Section 206 of the 1960 Flood Control Act. The program provides funding to each district
office to provide coordination with States, local communities, Native American Tribes and other entities. Coordination and technical assistance is provided to assure wise use of the nation's flood plains for new development and assistance in mitigating future flood hazards.

The program also provides for specific special studies for a wide range of flood-related projects. Typical special studies would include floodplain analyses for communities where there is no existing data, flood preparedness plans, hazard mitigation plans, and flood mitigation conceptual plans where other Corps programs are not justified. These studies generally promote a more non-structural approach to flood hazard mitigation.

Based on discussions with communities there is a huge increase in interest brought on by the Gulf Coast hurricanes. All communities are extremely concerned about reevaluating their flood risk and many are requesting levee certification. This request is important in two aspects. First, as a nation, we do not even have a complete inventory of levees and also do not know the safety level that these levees provide. Second, providing technical assistance with certification of levees in the Gulf Coast and throughout the nation (the State of California is currently facing significant issues with levees and certification) will help communities and states determine where future needs are and improve the quality of our nation's flood maps. Without counting levee certification the Corps FPMS program needs could be over $20 million dollars in FY 07.

►► ASFPM urges the Committee to provide for the full authorization of the FPMS program to $15 million in FY 08, and to consider a substantial increase in the annual authorization ceiling for this program to at least $50 million in the upcoming WRDA.

►► ASFPM urges the Committee to direct the Corps to explore how it can utilize the FPMS program to assist communities and states to evaluate existing levees and assist with certification of them as safely providing protection to a specific flood level. Additionally the Corps should be encouraged to work closely with FEMA to utilize this information to help develop more accurate flood maps for the nation that reflect the location and safety level of existing levees.

PLANNING ASSISTANCE TO STATES PROGRAM

Section 22 of the Water Resources Development Act (WRDA) of 1974, as amended, provides authority for the Corps of Engineers to assist the States, local governments, and other non-Federal entities, in the preparation of comprehensive plans for the development, utilization, and conservation of water and related
land resources. Federal allotments for each State or Tribe from the nation-wide appropriation are limited to $500,000 annually, but typically are much less. Individual studies, of which there may be more than one per State or Tribe per year, generally cost $25,000 to $75,000.

One innovative use of PAS funds is currently occurring in Ohio where the Huntington District has initiated a project called the Silver Jackets that is focusing on comprehensive solutions to flooding issues through the coordination of federal agencies and pooling of resources. Currently, the City of Marietta is a pilot community which was flooded severely in September 2004 and then again in January 2005. One of the needs identified is to do a comprehensive risk assessment and vulnerability analysis on flood prone structures in the downtown area and suggest some possible non-structural and structural solutions to mitigate against future flooding. It is important to note this effort employs a comprehensive planning process to involve all sectors of the public and is led by the community.

Every year there are more requests for PAS assistance than funds appropriated, leaving many needs unmet.

►► ASFPM urges the Committee to fully fund PAS at its authorized level of $10 million and also to consider an increase in this program’s annual authorization ceiling to at least $30 million.

►► The ASFPM supports the President’s budget for FY 2008 of $10 million for the Corps of Engineers to move forward with its inventory of the nation's levees and their status.

CONCLUSION
The ASFPM has a mission to reduce the costs of flood damages in the nation, which prior to the 2004 and 2005 hurricane seasons exceeded $6 billion/year. Today, we once again stand at a crossroads – in the aftermath of a catastrophic flood disaster with an opportunity to refine our nation’s policy for managing flood hazards. Thank you for the opportunity to provide our thoughts on these important issues. The ASFPM and its members look forward to working with you as we move towards a common goal of reducing flood losses. For more information, please contact:

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