

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS

COMPLETE STATEMENT

OF

ERIC C. HALPIN
SPECIAL ASSISTANT FOR DAM AND LEVEE SAFETY

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

HOUSE OF REPRESENTATIVES

ON

RECOMMENDATIONS OF THE NATIONAL COMMITTEE ON LEVEE
SAFETY

May 19, 2009

Madam Chair and other Members of the Subcommittee, I am Mr. Eric C. Halpin, Special Assistant for Dam and Levee Safety for the U.S. Army Corps of Engineers (Corps) and a registered Professional Engineer. I am pleased to be here today and to have the opportunity to speak to you about my role as the Vice Chair of the National Committee on Levee Safety (Committee) and the Committee's report to Congress on a National Levee Safety Program (NLSP).

I am here today to discuss the Committee's report but I must be clear that the Committee's recommendations do not represent an Administration position. In a letter dated May 7, 2009, the Army noted that an official policy review of the Administration would use the findings in the Committee's Report to inform its formal review. The Army also noted that the Administration expects to complete the review by this Fall.

The Committee is a diverse group of professionals mainly from state, local/regional governments, and the private sector as well as the Federal government. This group has worked diligently to represent national interests in levee safety. The report is in response to Title IX, known as the National Levee Safety Act of the Water Resources Development Act of 2007, specifically Section 9003.

Our nation is experiencing an increase in risk to people and infrastructure as a result of an aging levee infrastructure. The history of the United States is full of lessons - both successes and failures – of levee systems and their maintenance. The devastating floods of the late 1920s and 1930s brought a long period of unregulated and poorly constructed levees into focus, resulting in the construction of more robust levee systems for the decades of the 1930s through 1960s. The 1960s through the 1980s ushered in new national policies relating to flood insurance, cost sharing for flood control projects, and new owner/operator responsibilities that had the unintended effect of targeting levee designs to the

1%- annual chance event, commonly referred to as the 100-year level of protection. This then became the beginning of what our Committee believes is a dangerous and inappropriate association of the 1%-annual-chance (100-year) event as a universal safety standard. As an important aside, I would like to note, though, that the use of “100-year level of protection” should not be construed to mean that this type of flood event will occur only once every hundred years; rather, in any given year there is a one percent chance of its occurrence.

The Committee prefaces its recommendations by acknowledging a need for a broader management approach to the national flood risk, the benefits of integrating national dam safety and levee safety programs, and call for leveraging levee safety as a critical first step in a national infrastructure investment. The Committee also recognizes that levee systems commonly share the same space as water conveyance and critical ecosystems and habitats, and that working with these interests is vital in effectively managing flood risks.

The Committee’s Report on a NLSP embrace three main concepts: (1) the need for leadership via a National Levee Safety Commission (Commission) that provides for state delegated programs, national technical standards, risk communication, and coordinating environmental and safety concerns; (2) the building of strong levee safety programs in and within all states that in turn provide oversight, regulation, and critical levee safety processes; and (3) a foundation of well-aligned federal agency programs and processes.

The following is a summary of the Committee’s twenty recommendations that will inform the Administration’s comprehensive policy review of Federal planning for and implementation of programs while still reducing flood and storm damages to communities:

Comprehensive and Consistent National Leadership

1. Establish a Commission to provide national leadership and comprehensive and consistent approaches to levee safety including standards, research and development, technical materials and assistance, training, public involvement and education, collaboration on environmental and safety issues, facilitation of the alignment of federal programs and design, and delegation and oversight of a delegated program to states.
2. Expand and maintain the National Levee Database (NLD) to include a one-time inventory and inspection of all non-federal levees by the Corps. Baseline information would be included and maintained in an expanded NLD in order that critical safety issues, true costs of good levee stewardship, and the state of individual levees can inform priorities and provide data for needed risk-informed assessments and decision-making.
3. Adopt a Hazard Potential Classification System as a first step to identify and prioritize hazard in leveed areas. Because of a lack of data regarding probability of failure, initial classifications should be based solely on consequences in order to assist in setting priorities, criteria, and requirements as the NLSP is being established.
4. Develop and adopt National Levee Safety Standards that will assist to ensure the best engineering practices are available and implemented throughout the nation at all levels of government.
5. Develop Tolerable Risk Guidelines in order to facilitate an understanding of the options to reduce identified risks, how uncertainty affects this understanding,

and to better inform levee construction/enhancement decisions and weigh non-structural alternatives to flood risk management in a risk informed context.

6. Change “levee certification” to “compliance determination” to better articulate the intent that “certification” under the National Flood Insurance Program (NFIP) requirements does not constitute a safety guarantee or warranty. The purpose of this change is to more clearly communicate residual risks of living and working in leveed areas.

7. Subject levee certifications (compliance determinations) under FEMA’s NFIP to peer review in order to increase confidence in technical determinations of compliance.

8. Swiftly address growing concerns regarding liability for damages resulting from levee failures through exploration of a range of measures aimed at reducing the potential liability of engineering firms and/or government agencies that perform engineering services for levee systems (e.g. inspections, evaluations, design, construction administration, certification, or flood fighting). Congress should address this liability concern as a first priority in order to help ensure state and local interest in developing levee safety programs, and to prevent much needed levee repairs, rehabilitation, and certification from coming to a halt.

9. Develop a comprehensive National Public Involvement and Education/Awareness Campaign to communicate risk and change behavior in leveed areas as an essential element of levee safety to improve public understanding of the role of levees, associated risks, and individual responsibilities to empower people to make risk informed choices.

10. Provide comprehensive technical materials and direct technical assistance. This is crucial to the successful implementation of consistent national standards to states, local communities, and owner/operators.

11. Develop a national levee safety training program that includes a combination of courses, materials, curricula, conferences, and direct assistance resulting in an increase in the level of expertise and knowledge in all aspects of levee safety. This would include the development of curricula and certification requirements for Certified Levee Professional programs.

12. Develop and implement measures to more closely harmonize levee safety activities with environmental protection requirements to ensure critical levee operations and maintenance are not delayed and that, where possible without compromising human safety, environmentally friendly practices and techniques are developed and used.

13. Conduct a Research and Development program that will continually advance state-of-the art technologies and practices for levee safety and conduct critical operations and maintenance activities in as cost-effective and environmentally-friendly manner as possible.

Building and Sustaining Levee Safety Programs in All States

14. Design and delegate program responsibilities to states to assist state and local governments to develop effective levee safety programs focused on continual and periodic inspections, emergency evacuation, mitigation, public involvement, and risk communication/awareness, etc.

15. Establish a levee safety grant program to assist states and local communities develop and maintain the institutional capacity, necessary expertise, and program framework to quickly initiate and maintain levee safety program activities and requirements (cost shared).

16. Establish the National Levee Rehabilitation, Improvement, and Flood Mitigation Fund to aid in the rehabilitation, improvement, or removal of aging or deficient national levee infrastructure. Investment (cost shared) is recommended to be applied to the combination of activities, both structural and non-structural, that combined, would maximize overall risk reduction and initially be focused in areas with the greatest risk to human safety.

Aligning Existing Federal Programs (Incentives and Disincentives)

17. Explore potential incentives and disincentives for good levee behavior through alignment of existing federal programs.

18. Mandate purchase of risk-based flood insurance in leveed areas to reduce economic flood damages and increase communities and individuals understanding that levees do not eliminate risk from flooding.

19. Augment FEMA's mapping program to improve risk identification and communication in leveed areas, and consolidate critical information about flood risk.

20. Align FEMA's Community Rating System (CRS) to reward development of state levee safety programs by providing further incentives to communities to

exceed minimum program requirements and benefit from lower risk-based flood insurance rates to policy holders who live in leveed areas.

The Committee recommends phased strategic implementation as follows:

- Phase I: Immediately implement critical actions, to establish a NLSP, complete an inventory and initial inspection of all levees, establish a Coordinating Council on Communications for Levees, require mandatory risk based flood insurance purchase in leveed areas, and address barriers associated with levee liability.

- Phase II: Use a five to seven-year period that overlaps Phase I to incentivize the development of state levee safety programs through the deployment of a National Levee Safety Code, training, research and development, technical assistance and materials, start-up grants for states, and funds for rehabilitation and mitigation.

- Phase III: Transition to a steady state future where state and local levee safety activities are sustained through incentives and encouraged through disincentives such as withholding funds from existing programs. Levee safety decisions will be guided by the completion of Tolerable Risk Guidelines.

A NLSP may be the proper investment that moves the country away from a reactive disaster assistance environment to a proactive safety-oriented culture where the general public and governments are informed and able to participate in shared responsibilities of risk management and where levees are reliable.

One of the dichotomies of levees is that, while these structures have afforded the country economic prosperity, they have also tended to cost the U.S. taxpayer

when it comes to paying for disaster response, damages, and repairs when these same levees fail. The average yearly national cost can run in the billions. The potential risk exposure in the future is even greater. Though a NLSP has a potentially high cost associated with it, it may also be a long-term investment in public safety and continued economic prosperity. With growing development and consequences in almost all areas behind levees, the benefits of a strong safety program will only increase. Based on current trends, disaster assistance and recovery cost will likely continue to increase unless the country significantly changes its floodplain management practices at all levels of government.

Not only does the concept of levee safety fit within national infrastructure needs – protecting roads and bridges – but levee safety is also very much a state and local issue, as levees protect so much local infrastructure - such as homes, local businesses, schools, and water and sewer treatment plants - from frequent flooding. We view the report as a beginning, not an end, to addressing the issue of levee safety and look forward to working with you and other stakeholders while the Administration conducts its policy review. In the spirit of a good beginning, the Committee will seek additional stakeholder and agency input through a series of national and regional listening sessions that were beyond the accelerated pace of the report, but are important as one of the next steps in realizing a National Levee Safety Program.

This concludes my testimony, Madam Chair. Again, thank you for allowing me to testify on the ongoing efforts of the National Committee on Levee Safety. I will be happy to answer any questions you or the other Members may have.