The National Levee Safety Program:

How might your local government and citizens be affected?

Recent hot buttons for some of us in the Public Works community have been “levee safety”, and the conversion of flood maps to digital format (DFIRM). The conversion to DFIRM is when many of us first became aware of a requirement for “levee certification” if we wished for our levees to be considered as flood protection for (FEMA) insurance purposes. We subsequently discovered how expensive the intended certification may be, followed by the shock that very few engineering firms (if any) would commit to a “certification” according to the FEMA guidelines due to liability concerns.

Recently a recommendation has been made to Congress by the National Committee on Levee Safety to establish a “National Levee Safety Program” and to require mandatory risk-based flood insurance purchase in leveed areas. The economic impact of this recommendation is being gauged for the federal government by the Office of Management and Budget, but the economic impact on local governments and our citizens may not be receiving the attention that is necessary and warranted.

LOCAL EXPERIENCE

Our local experience was gained when we obtained a grant and retained a consultant to complete a Stormwater Master Plan (circa 2004). We were aware of the imminent development of DFIRM, and involved FEMA and state water resources agencies in the early stages of our project. They assisted in developing the project scope and participated throughout the project. At the request of these agencies, and to assist FEMA in collecting data to develop a county-wide DFIRM, we expanded the scope of work to include property that is unlikely to be incorporated into the city limits, is not impacted by our municipal stormwater system, nor likely to have any potential to impact our systems.

It is notable that this summary includes no previous mention of levees. Upon completion of our Stormwater Master Plan, we received direction from FEMA that our municipal levee system would NOT be considered as protecting affected properties until we submitted appropriate levee certification.

The levee in Ottawa, Kansas was constructed by the U.S. Army Corps of Engineers (USACE) circa 1960, resulting from the devastation of a 1951 flood in the Midwest. Upon completion of the project the City of Ottawa accepted responsibility for maintenance and operation according to USACE standards, and has worked diligently toward that responsibility since. Our relationship with the USACE, Kansas City District, is something we’re proud of. They have routinely inspected our project, noted what they considered to be acceptable or unacceptable maintenance practices, and been of significant assistance in helping to solve problems that were beyond the technical capabilities of our staff.

Other than the willing and able technical guidance we've received from USACE over the years, all of the funding for levee maintenance has been a local financial responsibility. There has been no state or federal funding made available to us for any maintenance activity. At least one
project to refresh the rip-rap on the levee after forty years was a very significant expense. Small cities don’t come by $1.2 Million easily! Notable, we believe, is a significant flood that we experienced in 2007. We believe that event met the criteria to be considered a 100-year (1%) flood event. All of the levees, walls, gates, pumps and other structures performed exactly as they were intended to do. We had approximately 6.5 feet of freeboard at the crest of the flood. We don’t know how any amount of number crunching by USACE, FEMA, consultant engineers could be a better example of whether our levee would perform.

This June 2007 photo shows the high water mark in Ottawa, Kansas. The street lights in the picture are on the Main Street bridge. The rolling gates at either end of the bridge held back significant flood waters. The object against the light post is a round hay bal, and some of our downtown buildings are seen in the background.

SUMMARY OF RECENT FEDERAL GOVERNMENT ACTIVITY

The 2007 Water Resources Development Act created the National Levee Safety Program Act of 2007: This act directs the development of a national levee safety program, in addition to the inventory and inspection of levees. A "committee on levee safety" shall recommend a levee safety program. The National Committee on Levee Safety (NCLS) submitted their report, RECOMMENDATIONS FOR A NATIONAL LEVEE SAFETY PROGRAM, to Congress on 15 January 2009. The complete report can be accessed from the NCLS home page http://www.iwr.usace.army.mil/ncls/.

If you have a levee protecting your citizens and their property, please make a point to study the entire report in detail.
Appendix D of *RECOMMENDATIONS* summarizes the aggressive schedule undertaken by the NCLS in order to meet the schedule established by 2007 WRDA. The members of the NCLS were, I believe, very successful in assembling a report representative of the opinions of all the stakeholders. It was my privilege to represent the APWA as a member of the Review Committee. On two occasions the Review Committee was called in to review the work completed by the NCLS and offer feedback. The working document was modified on each occasion in response to the feedback received. The feedback from APWA seems to have been overridden in some cases by other interests.

**REVIEW COMMITTEE (APWA) FEEDBACK**

With APWA staff assistance, we worked to gain input from throughout the membership. This section represents the feedback we gave to the NCLS. Some local experiences in small towns were cited, but this impact is not limited to small towns.

In general, there is significant concern about:

- the aggressive schedule and limited time to study / respond;
- the complexity of the proposal;
- the proposed added levels of bureaucracy;
- the stated ineligibility for funding where communities don’t meet size thresholds to be considered “high hazard potential”; and
- the apparent intent to withhold funding in some instances.

Program funding is difficult, regardless of how significant the program may be. Many programs are developed at the federal level and then “delegated”, as is being considered with this project. More often than not, there is not sufficient funding concurrently “delegated” with the enacting legislation, resulting in a state/local government responsibility to raise additional funds to support a new initiative.

This program is one that may be significantly more efficient if not delegated, at least entirely. While some local governments may be able to fund this program in addition to the many activities already a local responsibility, many will be unable to generate additional funding for new programs. In this regard, federal financial assistance would help implementation of the program and be more effective due to the ability to work across political boundaries with fewer entities involved than if all “sponsors” had to have their own programs and be solely responsible for funding. Consolidation of this effort to the maximum extent seems to be the most cost-effective manner of implementation.

Our belief is that disincentives have little (if any) merit. If a state has difficulty achieving an established standard, how is “ineligibility for NLSP grants” going to help fix the problem?

Limiting the funds to “high hazard” areas as defined in this edition of the draft eliminates many municipal systems, and should be reconsidered. The willingness to fund a local share for levee enhancements should weigh heavily into deciding where funds will be made available. There should be some means to incorporate “economic” impact in addition to the number of lives at risk. “Percentage of property value at risk” or the “percentage of population at risk” may be possible starting points for that discussion.
Specifically, 10,000 lives at risk will not come into play in our city of 13,000. However, inundation of the levee protected area of our town will possibly affect that number of jobs due to the “business centers” being within the levee protected area. The economic loss could be devastating.

**The inability to access funding due to the population of our city seems to be unnecessarily punitive.**

**NCLS RECOMMENDATIONS AND POSSIBLE EFFECTS ON LOCAL COMMUNITIES**

Following are some points from *RECOMMENDATIONS* that may cause some concern or action to be taken by the Public Works community…also some opinions. Please become familiar with the document if you are responsible for levees and develop your own opinions and local government positions on these issues.

- The focus appears to be about saving lives and “turning the tide on risk growth”. While we would all agree with this concept and would also have it at the very top of the priority list, I suggest we would also have property protection and economical implementation of the programs as significant points of focus.

- The report includes a specific recommendation to “Change Levee Certification” to “Compliance Determination”, reinforcing that the intent of “certification” under the National Flood Insurance program requirements does not constitute a safety guarantee or warranty, further encouraging Congress to address the liability concerns in order to keep levee safety programs from coming to a halt. This must be more than simply a change from using the term “certification”.

- The report recommends establishing a “Certified Levee Professional program”. This may be an educational program opportunity for APWA, as I believe the intent is that a P.E. license wouldn’t be a requirement. The details, however, remain to be determined.

- The report recommends establishing “the National Levee Rehabilitation, Improvement, and Flood Mitigation Fund”. The focus on human safety is the highest priority stated in the report, and the report indicates that emphasis should be placed where there is a risk to 10,000 lives if a levee fails. That threshold of danger to human lives will likely exclude most of us in the Public Works community with respect to receiving any federal funding to improve levees. Even the larger cities may have difficulty attaining the 10,000 lives threshold.

- The report recommends purchase of flood insurance by all property owners protected by the levee in order to reduce economic exposure. This may have the potential to create a political firestorm in small communities.
The NCLS recommends a three-phased “strategic implementation”:

Phase I:  Implement enabling legislation, inspect levees, and require affected property owners to buy flood insurance.

Phase II:  Delegate the program to states and/or local governments with incentives.

Phase III:  Transition into sustaining levee safety at state and local levels using disincentives, such as withholding funds.

WHERE DO WE GO FROM HERE?

The NCLS report/proposal may create a significant contentious political discussion, as the details deeper in the report indicate most levee systems may be excluded from funding unless states accept “delegation” of the program. My belief is that many states are not staffed to accept such a delegation, and funding doesn’t seem to be an easy issue for any of us.

The current recommendation has a financial impact on private property owners in levee protected areas that has not been included to the report. The potential cost to a property owner for flood insurance will be a significant factor, and should be a component of the equations used to determine the final direction of the proposed legislation.

The APWA feedback to the NCLS was that administration of the National Levee Safety Program was probably best retained by the USACE. The USACE could promulgate rules related to when and if a program could/should be delegated below the federal level based on reasonable criteria. The USACE could be augmented with staff to accomplish this routine function, and could retain consultants in Districts far more economically than individual communities.

If you have responsibility for a levee in any way you should become very familiar with NCLS report and measure how your agency and citizens may be affected by the possible outcome. This may be an issue you wish to discuss with your Congressional delegations, and I suspect an issue that needs to be at the forefront of APWA education until the issue is resolved.