



Chief engineer explains Corps' turnaround on Trinity levees

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The Dallas Floodway System, which reduces flood risk to a large part of the city, has been much discussed, largely because of the “unacceptable” rating from the March 2009 Army Corps of Engineers’ periodic inspection report. That’s understandable. Like all of us, the leaders and residents of Dallas surely want to protect their families, their lives and their property.

Last month, we delivered some good news about the levees to the city: The results of our Army Corps of Engineers’ risk assessment showed that the levees are in better shape than we thought. This had led some people to ask the simple question: “What changed?”

The answer is that our understanding of risk has changed — for the better — and I appreciate this opportunity to clarify further.

To give some perspective, the Army Corps of Engineers operates under certain principles relating to levee safety:

Public safety is our No. 1 priority. As part of America’s Army, we are obligated to serve our nation and help protect our people. The corps’ commanding general, Lt. Gen. Thomas P. Bostick, recently reiterated that sentiment, especially in regard to the nearly 14 million Americans who live and work behind levees that are part of the Corps Levee Safety Program.

Levee safety is a shared responsibility. In this case, we share that responsibility with, among others, the nonfederal sponsor, the city of Dallas. The city has been a very conscientious and proactive partner, diligently correcting 198 operations and maintenance deficiencies identified in the periodic inspection and conducting intense investigations to collect additional and necessary geotechnical data. Like all dynamic partnerships, we have had our differences of opinion, but our shared commitment to the citizens of Dallas has overcome those differences.

Levees reduce risk, but they do not eliminate it. There will always be some residual risk — not a very comforting concept for many, but it is the reality. Underlining our commitment to the people of Dallas, we brought in technical experts from the corps’ Risk Management Center to look at the levees. This decision by our Washington headquarters to accelerate the use of the risk assessment process for Dallas demonstrates that we consider the Dallas floodway a national priority that warranted immediate use of this process, which will soon be implemented nationwide.

This risk assessment process helped us better evaluate and understand risk in three major areas:

Flood frequency: We previously believed that the likelihood of a storm creating a flood level that could top the levees to be a 1-in-800-year chance event. Thanks to 20 additional years of flood history, the latest technology and additional data, we now believe it to be a one-in-1,000 to 5,000-year chance. We will refine the flood frequency estimates to a narrower range this summer.

Flood duration: In our recent review, we used the most updated methodology that provided the most likely flood duration. It is significantly shorter than earlier believed — from a few weeks to a few days. This means that floodwater is on the levees for a much shorter time, so the levees are less likely to become saturated and fail.

Levee slides: Levee slides have occurred over the years. We were concerned that these slides indicated a more serious problem. But after extensive analysis by geotechnical engineers using the data from more than 5,000 borings, we concluded that these slides currently do not pose an unacceptable level of risk.

Based on this new data, along with the 198 corrections performed by the city of Dallas, you can see why we have a greater confidence that the levees will perform as they should during a significant flood.

We cannot totally eliminate the risk of flooding to the people of Dallas. But we are now examining cost-effective alternatives to further “buy down” risk to life and property, and will present our recommendations to the Dallas City Council this fall.

All of us at the Army Corps of Engineers remain committed to the safety of the people of Dallas. We consider ourselves part of this great American city, and you will always be a national priority to us.

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