



New York State Floodplain and Stormwater Managers Association
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TO: US Army Corps of Engineers
FROM: New York State Floodplain and Stormwater Managers Association
SUBJECT: Development of the National Levee Safety Program
Docket Number: COE-2021-0007
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The New York State Floodplain and Stormwater Managers Association (NYSFSMA) is a professional organization with over 600 public and private sector members from throughout New York State. The Association appreciates this opportunity to provide suggestions regarding the scope of the National Levee Safety Program.

Overall Program Focus and Purpose

What is a levee? The US Army Corps of Engineers (USACE) definition of a levee is:

“A man-made structure, usually an earthen embankment or concrete floodwall, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide reasonable assurance of excluding temporary flooding from the leveed area.”

The public sometimes uses the word “levee” to refer to berms or embankments that are not engineered structures and do not provide reliable flood protection. In fact, the National Levee Database includes a broad range of structures, including some that were not built to engineering standards. The wide diversity of “levee” types makes sense, since a structure intended to protect farmland may not warrant the same design standards as one that protects a developed area. However, when an agricultural levee is simply referred to as a “levee,” this may imply to future decisionmakers that it provides adequate protection for housing or other development. New York State contains numerous berms or embankments along streams that were not engineered—including many built with stream gravel—that property owners refer to as “levees” and rely on for flood protection. One way to reduce the false sense of security provided by these structures is to use more precise terminology that distinguishes them from structures that have been designed, constructed and maintained based on sound engineering practices. We recommend that each structure in the National Levee Database be assigned a name or prominent classification that signifies its reliability. This could be accomplished by classifying each structure in the database as a USACE levee, accredited levee, or indeterminate earthen structure, so that the term “levee” is only used for Corps-built and accredited levees. Or a more complex classification scheme could be devised to incorporate differences in design standards, maintenance history, and available information. This overall assessment of the levee type should be included with the levee name so that it is clear to users of the National Levee Database prior to reading the system information.

National Levee Safety Guidelines

The best practice information in the National Levee Safety Guidelines may need to include multiple products to accommodate diverse outreach audiences, flood characteristics, protection objectives, land uses in protected areas, and levee features.

In order to protect beneficial floodplain functions and avoid adverse impacts, the guidelines should promote the use of setback levees and discourage levees that provide a high level of flood protection for large areas of

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agricultural land. Agricultural levees that provide a low level of protection (such as 10-year) or that protect localized building sites are preferable. Alternative practices that protect agricultural soil from erosion are preferred, along with crop insurance and other strategies to accommodate flood-related losses.

The Guidelines should include guidance and standards for breaching indeterminate earthen structures (and sometimes levees) in order to restore floodplain habitat and functions.

Integrated Levee Management

State levee safety programs should include technical assistance and outreach to local communities. Many communities with levees lack the technical expertise needed to effectively conduct emergency planning, risk communication, and other levee safety tasks. States should receive adequate funding to enable state support for local levee safety efforts.

Risk communication should be the shared responsibility of all levels of government. The public needs to receive consistent messaging from multiple authoritative sources.

Federal agencies should use consistent methodologies for levee-related analyses (including the US Army Corps of Engineers, Federal Emergency Management Agency, and Natural Resources Conservation Service).

National Levee Database

Entry pages for the National Levee Database (NLD) should present the definition of “levee.” If this definition continues to include “designed and constructed in accordance with sound engineering practices,” then any structures that do not meet this standard (or for which design information is not available) should either be removed from the database or clearly flagged to indicate that the status as a “levee” is questionable. If the National Committee on Levee Safety determines that “sound engineering practice” varies due to the age of the structure, protection objectives, or other factors, then the design criteria should be clearly stated in each levee system summary.

In order to support improved levee safety, public pages of the National Levee Database should include an executive brief with key findings and recommendations from the inspection reports for each levee system. This can help the public and local communities to advocate for, fund, and implement improvements.

Additional information is needed about the levee data used by the National Flood Insurance Program to rate insurance policies using Risk Rating 2.0 (RR 2.0). Both general information about the use of levee data for insurance rating and levee-specific details are needed to support FEMA's stated objective of using RR 2.0 to improve policyholder understanding of their individual risk. Are levee characteristics used to rate all policies within leveed areas depicted in the NLD? What data from the database are used? How does this information affect premiums for individual policy holders and for the entire leveed area? What information is used for RR 2.0 policies when levee data are missing?

All levee information used for Risk Rating 2.0 should be verified for accuracy and completeness.