

SUBMITTING FEEDBACK ON THE NATIONAL LEEVE SAFETY GUIDELINES

There are a number of ways to submit feedback on the National Levee Safety Guidelines between April 1-July 31 including:

- » Visit www.levesafety.org for a full draft of the Guidelines and convenient feedback forms.
- » Send an email to hq-levesafety@usace.army.mil
- » Visit www.regulations.gov and search for Docket Number COE-2021-0007.
- » Send feedback via mail to:
USACE
Vicksburg District
 Attn: Levee Safety Center – Rm 221
 4155 East Clay Street
 Vicksburg, MS 39183

National Levee Safety Guidelines: Roadmap



FILLING A GAP IN COMPREHENSIVE BEST PRACTICES FOR LEEVES

Approximately 24,000 miles of levees throughout the United States reduce risk to over 23 million people that live and work behind them. In recognition of the critical role levees play in managing flood risk for the Nation, Congress, through the National Levee Safety Program, required the development of a set of comprehensive procedures for levees that can be adapted for different conditions. The first of its kind, the National Levee Safety Guidelines (Guidelines) are a resource of best practices to help achieve nationwide consistency in improving the reliability of levees and resilience of communities behind levees.

The Guidelines include state-of-the-art practices that are intentionally:

- » **Designed to meet the needs of multiple users** – recognizing that the protection of people and property from flooding involves varied and interwoven responsibilities in levee operations and maintenance, flood risk management, and public safety.
- » **Considerate of the larger watershed, to include the community and the environment** – recognizing that integrating levees with other societal values enhances opportunities for more holistic approaches to flood risk management.
- » **Collaborative** – recognizing that a national set of guidelines must include the expertise, voices, and values of a broad set of levee

interests informed by extensive stakeholder feedback.

Over time, we hope that the Guidelines will be a practical and useful reference for many to include:

- » Levee owner/operators have a readily available resource to use as a reference for specific levee activities.
- » Communities and local officials use the Guidelines to better understand the benefits and risks of levees and work to develop a flood risk management strategy that integrates reliable levees with overall flood risk management, emergency planning and response, and public awareness.
- » States consider the Guidelines to be a key resource as they develop and implement state-wide efforts in levee safety, but also look to incorporate the best practices into existing hazard mitigation, flood risk management, resiliency and natural/water resources management strategies. Where appropriate, states may point to portions of the Guidelines as best practices for owner/operators or communities within their states.
- » Federal agencies with flood risk management responsibilities will review and consider the Guidelines to inform and update their agency-specific policies and procedures – to bring into greater alignment terminology, principles, and practices of the federal government.

CREATING THE GUIDELINES – A COLLABORATIVE EFFORT

Creating the first ever set of draft best practices for levees has been a significant undertaking, with thousands of hours, the work of nearly 15 authors, more than 50 agency staff, and the incorporation of two rounds of broad stakeholder input to guide its development. To ensure that the Guidelines reflect national best practices, a three-pronged approach was followed involving government agencies, private sector, and stakeholders across the country. The approach has the following main components:

Broad Expertise and Oversight Sought from Federal Agencies. An interagency group of professionals was assembled to provide oversight, ensure technical accuracy, and promote common language and consistency for the publication. This Guidelines Management Team developed the overall approach, selected and managed author teams, and incorporated several rounds of feedback from subject matter experts and stakeholders. The multi-disciplinary team includes members from federal agencies with expertise in engineering, floodplain management, disaster response, natural resource management, weather forecasting, stormwater management, community engagement, and environmental skillsets.

Primary Authors Drawn from the Private Sector. Adhering to a list of desired qualifications and selection procedures for authors of the Guidelines, author teams were selected from seven technical consulting firms. Collectively, the author teams have expertise across the Guideline’s content areas, work in all regions of the country, and include industry leaders and nationally-recognized experts. It was important that a team outside the federal government be heavily involved to ensure practices are implementable by a wide range of users and include perspectives of the private sector and communities.

Broad Stakeholder Input: A Foundation of the Guidelines. At two key points in the development of the Guidelines, stakeholders were asked to provide input. To promote active participation and access to all, a variety of methods were used including regional in-person meetings, webinars, and two rounds of input via the Federal Register. Feedback received from stakeholders helped to ensure Guidelines were relevant, understandable, and reflective of prospective user’s needs and priorities. Summaries of who participated and comments received from each of these efforts in 2021 and 2023 can be found at www.levesafety.org.

Commitment to Continual Improvement. The 1st edition of the National Levee Safety Guidelines is just the beginning. There is a commitment to periodically update the Guidelines with new and

WHO IS ON THE GUIDELINES MANAGEMENT TEAM?

- » *U.S. Army Corps of Engineers*
- » *Federal Emergency Management Agency*
- » *National Weather Service*
- » *Natural Resources Conservation Service*
- » *U.S. Bureau of Reclamation*
- » *U.S. Environmental Protection Agency*
- » *Tennessee Valley Authority*
- » *Experts (International Levee Handbook)*

evolving practices, incorporate changes based on user relevance and experience, further develop areas where best practices are not well defined, clarify any areas that might be confusing, or better align content/navigation to improve the user experience.

Umbrella for Supplemental Resources. The Guidelines are a high-level document that point to more detailed procedures, tools, and techniques. The final publication will be interactive and include links to other relevant documents and between chapters. Supplemental resources are being developed based on stakeholder feedback and will be announced when available. If you are interested in being notified when resources are available or updated, “opt-in” on the email list at www.levesafety.org.

Below are the steps involved in developing the National Levee Safety Guidelines. Steps 1-5 describe the major activities to date. Steps 6-8 are planned for the near future to finalize the 1st edition of the National Levee Safety Guidelines and to develop a plan to continue to update the Guidelines over time.

SUPPLEMENTAL RESOURCES UNDER DEVELOPMENT

- » *Levee Cost Estimating Tool*
- » *Levee Management Guide (detailed operations and maintenance)*
- » *Emergency Action Plan Template*
- » *Operations & Maintenance Manual Template*
- » *USACE/FEMA Programs Guide for Levee Communities*

WHERE WE ARE AND WHERE WE ARE GOING

Steps for Developing the National Levee Safety Guidelines



NAVIGATING THE GUIDELINES

Because the Guidelines are intended to be used by many different audiences, we have created a table (shown on the next page) that indicates which chapters may be of most interest to you based on your role in levee safety, floodplain management, and community resilience. Of course, we realize that one individual or organization may play multiple roles and we would welcome feedback on the entire document.

NATIONAL LEVEL SAFETY GUIDELINES – WHICH CHAPTERS SHOULD I READ? Learn which chapters may be of most interest based on your role in levee safety, floodplain management, and community resilience.		LEVEL OWNER/ OPERATORS	EMERGENCY MANAGERS	LOCAL COMMUNITY OFFICIALS	TECHNICAL PROFESSIONALS	ENVIRONMENTAL /TRIBAL INTERESTS
	PREFACE AND NAVIGATING THE GUIDELINES High-level information on Guidelines development and descriptions of visual tools to assist readers with navigation and readability.	✓	✓	✓	✓	✓
	CHAPTER 1: MANAGING FLOOD RISK Basic decision-making framework for communities to align goals with flood risk management, flood risk tolerance, and resilience and if levees fit into those goals. Also includes different flood hazards and consequences of flooding.	✓	✓	✓	✓	✓
	CHAPTER 2: UNDERSTANDING LEVELLE FUNDAMENTALS Basic terminology and related information that focuses on levee features, functionality, and common ways that levees can fail.	✓		✓		
	CHAPTER 3: ENGAGING COMMUNITIES Approaches for engaging communities during each phase of the levee lifecycle.	✓	✓	✓		
	CHAPTER 4: ESTIMATING LEVELLE RISK Technical procedures for estimating levee risk to include estimating hazards, performance, and consequence and understanding risk assessment results.	✓	✓		✓	
	CHAPTER 5: MANAGING LEVELLE RISK Risk management principles and guidance on key decisions and management actions for each phase of the levee lifecycle (i.e., how to prioritize and scale the level and frequency of routine activities).	✓				
	CHAPTER 6: FORMULATING A LEVELLE PROJECT Principles and practices of formulating a new, modified, or rehabilitated levee to include considerations when choosing alternatives and realizing the benefits of incorporating adaptive management into the planning process.	✓		✓	✓	✓
	CHAPTER 7: DESIGNING A LEVELLE Design process for a new levee or one to be rehabilitated or modified, including common challenges associated with levee design and solutions to address those challenges.				✓	
	CHAPTER 8: CONSTRUCTING A LEVELLE Levee construction process including best practices to use prior to, during, and at the end of levee construction – emphasizing practices that promote good levee performance, resilience, and serviceability.	✓			✓	✓
	CHAPTER 9: OPERATING & MAINTAINING A LEVELLE Practices for operating and maintaining levee features, developing an operations and maintenance plan, and identifying and resolving common operations and maintenance challenges.	✓				
	CHAPTER 10: MANAGING LEVELLE EMERGENCIES Preparing, managing, operating, and recovering from a levee emergency to include best practices for developing emergency plans, effectively utilizing inundation maps, and monitoring, collecting, and storing levee performance data during floods.	✓	✓	✓		
	CHAPTER 11: RECONNECTING THE FLOODPLAIN Principles for levee setback or removal and considerations during the planning, design, and construction phases. Also includes floodplain restoration benefits and impacts of levee removal within the floodplain and watershed.	✓	✓	✓	✓	✓
	CHAPTER 12: ENHANCING COMMUNITY RESILIENCE Actions to mitigate damages from flooding in the event of levee overtopping such as warnings, alerts, evacuation planning, public health and safety considerations, and consideration of underserved communities.		✓	✓		✓