

Communicating Levee Safety Risk Post Levee Screening

Levee Safety Program
U.S. Army Corps of Engineers
Omaha District
Lowell Blankers, PE, CFM



US Army Corps of Engineers
BUILDING STRONG



Levee Safety Risk Communication: Authority

Legislation through WRDA 2007 & WRRDA 2014

- Requires making levee information publicly available including location, general condition and potential consequences in the case of a levee breach or overtopping.

Specific Project Authorizations

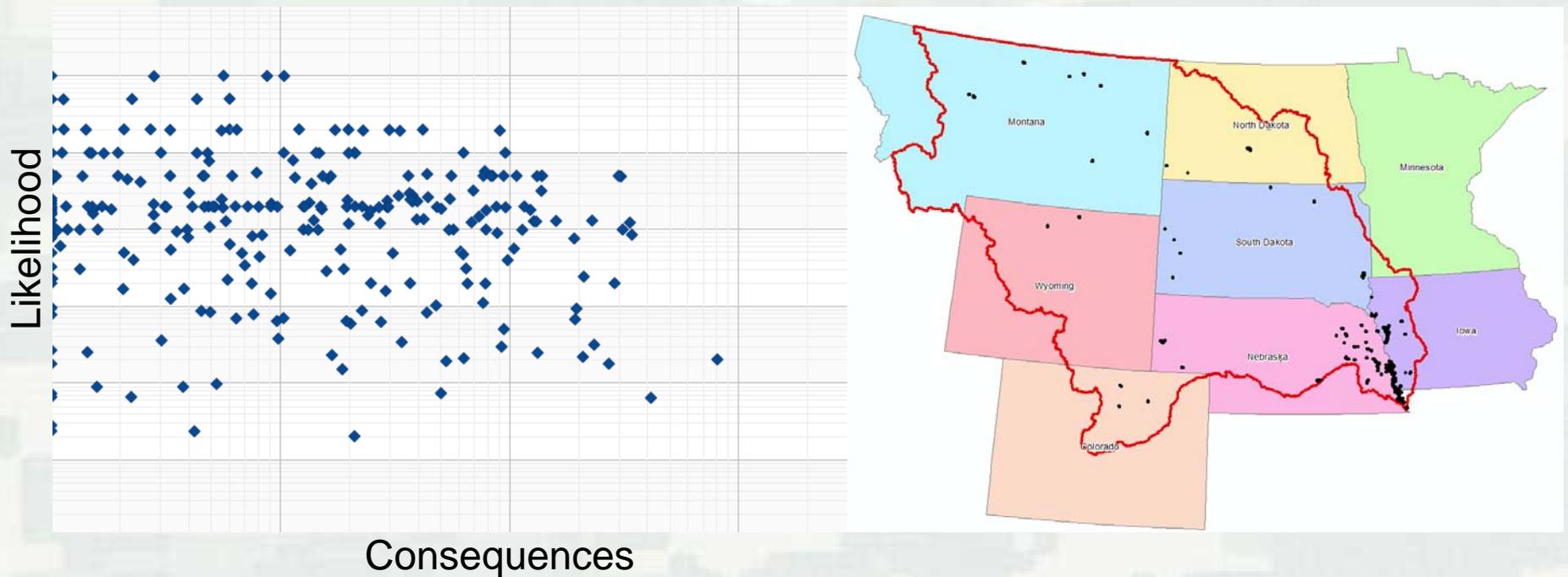
- USACE has the responsibility to assess levee systems and communicate findings (including associated benefits and risks) in order to ensure the project is delivering the intended federal benefits and/or to carry out more programmatic authorizations such as authorities pursuant to the Rehabilitation Program.



BUILDING STRONG®

Current Status of Levee Screening

- The Omaha District has screened 170 levee segments.



BUILDING STRONG®

Current Status of Levee Screening

- The communication of the results has been on hold in order to develop a consistent and coordinated process.
- With guidance from USACE HQ, the Omaha District is developing a communication plan to ensure that it is a consistent and coordinated process
- Upon USACE HQ approval and direction the Omaha District will begin communicating the results.



Levee Safety Risk Communication: Goals

USACE

- Improve sponsor engagement in USACE levee safety activities
- Communicate results of the levee safety assessment to the non-federal sponsor
- Improve non-federal sponsor's understanding of benefits and risks of levee systems
- Promote actions to manage risks
- Build and improve relationships

Non-federal Sponsor

- Improve public awareness and preparedness planning
- Communicate to the public the levee location, general condition and consequences of seepage/ breach/ overtopping
- Improve public's understanding of risks
- Implement projects to address levee safety concerns and identified deficiencies



BUILDING STRONG®

Overall Process



- USACE characterizes the levee risk, based on levee screening (risk assessments)
- USACE coordinate a risk communication strategy with sponsor and FEMA



Overall Process

- Strategies and timelines are flexible, based on risk and audiences
- After communication a publicly available Levee System Summary is posted to the National Levee Database (NLD)

The screenshot shows the homepage of the USACE National Levee Database. At the top, there is a header with the US Army Corps of Engineers logo and the text "US Army Corps of Engineers" and "National Levee Database". Below the header is a navigation menu with links for "Home", "Reports", "Maps", "Help", and "Contact Us". The main content area includes a "Welcome to the National Levee Database" section with a brief description of the NLD. To the right, there are three boxes: "Maps" (Search and view levees using the interactive map), "Help" (Download user manuals, quick guides and videos on how best to use the NLD), and "Contact Us" (Please contact us for assistance with the NLD). Below these is a "Please Note" box in red text: "Please Note: The NLD currently contains the majority of levees within the USACE program. The NLD does not contain all levees located in the United States." At the bottom, there is a "Reports" section with three options: "Basic System Reporting" (Search for NLD levee data by specified search criteria), "Advanced Reporting" (Navigate through customized reports), and "Find Levees Near Me" (Form with Zip Code, Distance, and miles fields, and a Submit button).

USACE National Levee Database
<http://nld.usace.army.mil>



BUILDING STRONG®

USACE Risk Framework for Levee Systems

How likely is the hazard (flood, earthquake) to occur?

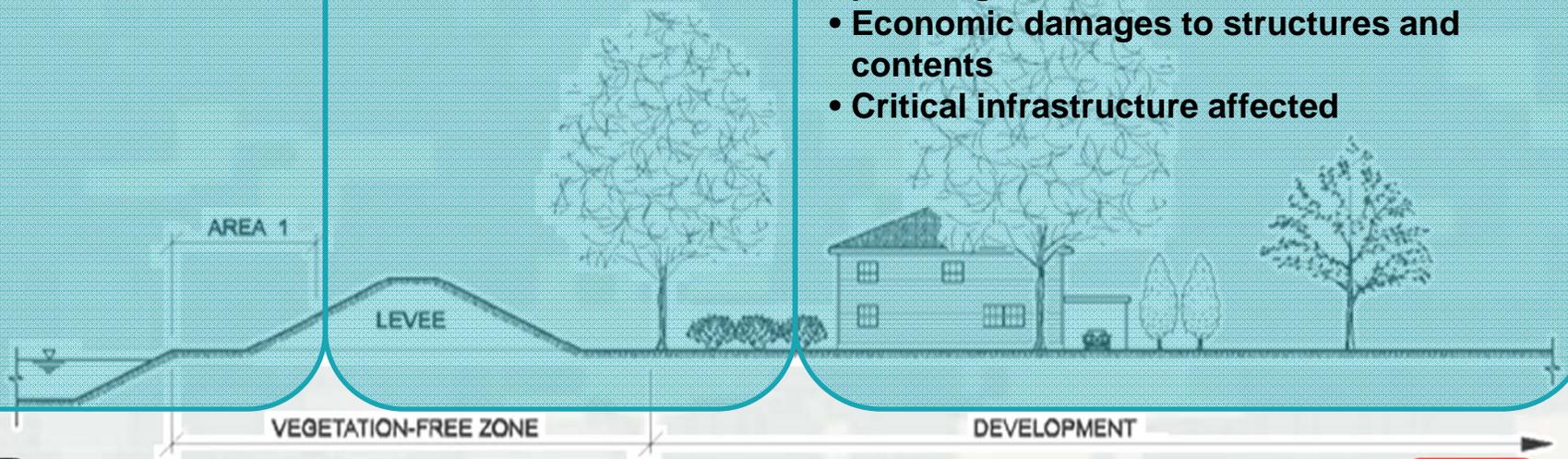
- Probability of Flood Loading

How will the levee perform during the hazard?

- Seepage
- Stability
- Erosion
- Closure systems

What are the consequences for non-performance?

- Loss of life*
- People at risk
- Community awareness and preparedness planning
- Economic damages to structures and contents
- Critical infrastructure affected



**Avoiding life loss is USACE's top concern.*



BUILDING STRONG®

Assessing Risk

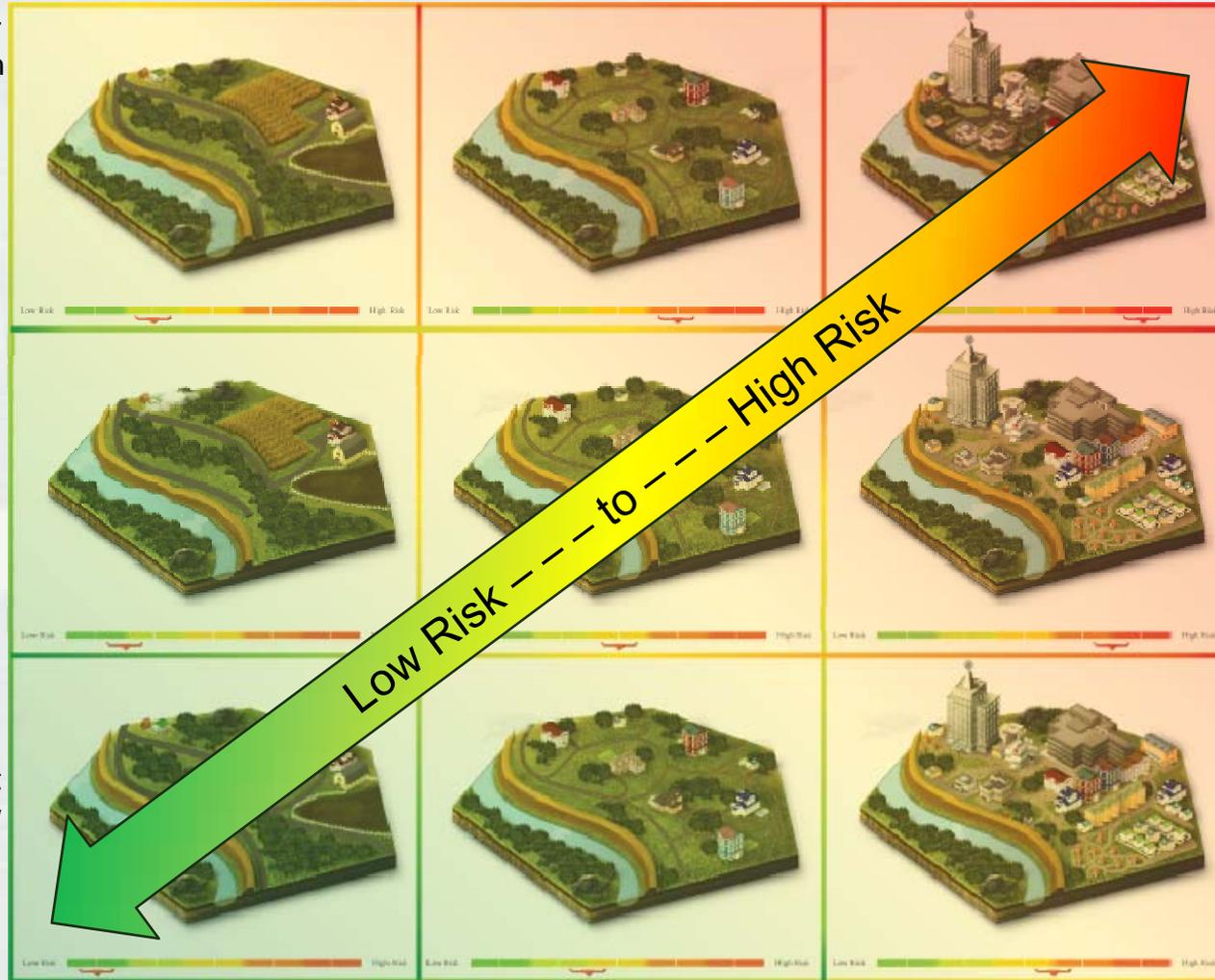
Nearby Population: small
of Structures: low

CONSEQUENCES

Nearby Population: large
of structures: high

Levee Condition: poor
Flood Probability: high

L
I
K
E
L
I
H
O
O
D



Levee Condition: excellent
Flood Probability: low



BUILDING STRONG®

Coordinating Risk Communication Strategy

- Presentation and meeting with Sponsor to discuss the screening results.
- The results will be used to guide the communication strategy. The level of communication will be scaled to the level of risk.
- FEMA will be asked to participate in the discussions and the risk communication.
- Other Stakeholders such as the Local Floodplain Administrator, County Emergency Manager or other community officials may also be asked to participate.



Levee System Summary Sheets

Levee System Summary
Name of the Levee System
City and State

U.S. ARMY CORPS OF ENGINEERS BUILDING STRONG®

Project Description: Please include a brief general description of the levee system, including the location and category of the levee (USACE operated and maintained, federally authorized locally operated and maintained or non-federal levee), brief physical description (such as total length, length of embankment, length of floodwall, average height, and any other significant features), and the number of levee segments if there is more than one. Include relevant information on the leveed area such as the community name, location, the purpose and history of the levee system (such as construction and performance history) and benefits from a quantitative and qualitative standpoint. If there is a number for flood damages prevented, include that. If there is no quantitative data available, please provide a description of the qualitative standpoint. You can use information such as the types and dollar value of infrastructure protected, number of residents and homes, and/or the number and size of farms included.

Risk Characterization: Provide information summarizing the risk characterization for the levee system, including the identified issues (risk drivers) and potential consequences. Include the latest information about when the risk assessment was done, the result, and the primary risk drivers. Describe the elements that should be considered as part of the assessment, such as level of uncertainty in existing information. **The LEOG reference for the LSAC captured in the LST is a good starting point in developing this summary.**

What is driving the risk? (Listed in order of priority)	What is being done about it? (Risk Management)
(Provide a short summary of risk drivers in order of priority. Identify major recommendations from Risk Assessments and coordinate with Community of Practice to prioritize and summarize the identified issues.)	(Coordinate with the public sponsor, FECH, and stakeholders along the system for a consistent message to the public. Provide a general summary of the issues and actions (insert additional text as necessary).)

What is important to know? (This is an optional section to provide additional information or messages that would be essential to highlight for the leveed area.)

U.S. ARMY CORPS OF ENGINEERS – ENTER DISTRICT NAME HERE
ENTER DISTRICT ADDRESS HERE
ENTER DISTRICT WEB ADDRESS HERE

- Resource document, not the only communication tool.
- One summary for each system.
- Coordinate draft with the sponsor including risk reduction actions
- Coordinate with FEMA
- Post in NLD at completion.



BUILDING STRONG®

Levee Safety Risk Communication: Next Steps

USACE

- Support non-federal sponsor in communicating levee safety assessment results to the public
- Monitor actions for addressing safety concerns
- Ensure ongoing communication with non-federal sponsor regarding levee status

Non-federal Sponsor

- Lead public communication effort regarding status of levee assessment
- Develop plans to address safety concerns including reviewing preparedness plans
- Communicate preparedness plans
- Implement projects to address levee safety concerns

