ASFPM FEMA/USACE Levee Discussion
From Inspections to Accreditation – What it Means to You

June 2014

Presenters:
Tammy Conforti, USACE
Bill Blanton, FEMA
Jim Murphy, URS
Today’s Agenda

1. The levee challenge & our objectives for this discussion
2. Session Format – How will this interactive session work?
3. Major Areas to be covered
   ► RECAP since last year’s session
   ► Joint USACE/FEMA efforts
   ► USACE activities
   ► FEMA activities
4. Your other levee issues
The Continuing Levee Challenge

- The nation has thousands of miles of levees.
- Over 1/4 of the counties in the US have levees.
- ASCE gave a report card grade of “D-” to levees.
- Levees are aging and more stuff is being put behind them.
- Citizens living behind levees assume they are safe from flooding.
This Levee Session’s Objective

- **KNOWLEDGE** - Provide you with insight into:
  - USACE’s and FEMA’s joint efforts
  - USACE levee activities
  - FEMA levee activities

- **PARTICIPATION** - Provide a forum that encourages you to ask questions and provide feedback.
Format for Today’s Discussion

- **Step #1** – Facilitator provides a “question/comment”
- **Step #2** – FEMA & USACE panelists provide a prepared response
- **Step #3** – Audience comments/expands on question/response
- **Step #4** – Panelists may provide additional responses
- **Intermittent Step #5** – Facilitator requests feedback from the audience
Question #1 – quick recap

What is FEMA’s levee role & responsibilities?

What is the USACE’s levee role & responsibilities?
FEMA’s Role in Levees

- Present flood hazard and risk information
- Establish appropriate risk zone determinations
- Establish mapping standards
- Accredit levee systems on FIRMs
- Produce outreach and communication materials
- Explain risk of living with levees
USACE Levee Safety Program Mission

…Ensure levee systems provide benefit to the Nation by working with stakeholders to assess, communicate, and manage the risks to people, the economy, and the environment…
Miles of Levees Outside of the USACE Levee Safety Program

14,500 miles or 2500 levee systems

USACE Program Levees

- USACE Maintained (2800 miles)
- USACE Constructed/Locally Maintained (9500 miles)
- Nonfederally Constructed/Locally Maintained in USACE Rehabilitation Program (2200 miles)
Question #2

How have you been cooperating since last year’s discussions?
USACE-FEMA MOU

- **Purpose** – Formalize the commitment for alignment of levee activities, information, and messaging
- **Content** – Coordination of policies, direct exchange of information for accreditation, consistent information sharing with sponsors and communities, and coordination for data management
- **Implementation** – Fostering communication between FEMA Regions and USACE Districts
Question #3A – for the USACE

1st issue - A continuing area of interest has been FEMA’s Certification/Accreditation Process

Does your cooperation address this issue and how is the USACE Involved, since this is a FEMA responsibility?

What is the relationship between certification and the USACE risk framework & what is a “risk Framework”?
USACE Levee Safety Program

Implementing the Risk Framework

Answer the Basic Questions:
- Condition
  - Inventory
  - Periodic Inspections

Tell the Story:
- Context
  - Risk Assessments
  - Communication

Build Shared Solutions:
- Action
  - Advise
  - Plan Path Forward

Initiated 2006 -2009
Initiated in 2010
Planned for 2014-2015
Flood Risk = f(chance of flood, consequences)

Sometimes land use has changed

Sacramento, California
Risk Characterization

- Scalable Risk Assessments
  - Commensurate with Decision to be Made
  - Screening Level for Entire Portfolio
  - Higher Level Risk Assessment for Non-Routine Decisions

Risk = f(Hazard, Performance, Consequences)
Levee sponsors and communities have a key leadership role in ensuring a levee is properly operated and maintained, implementing emergency response activities, and making floodplain management decisions.
FEMA-USACE Task Force Recommendations

1. Risk assessments modified to meet accreditation requirements.
2. Revise USACE inspection checklist to better align with accreditation requirements.
4. Develop joint Memorandum of Understanding.
Risk Assessments for Accreditation Purposes

- **Basis – 44 CFR 65.10 (e)**
  - In lieu of these structural a Federal agency with responsibility for levee design may certify....

- **USACE will adjust its existing risk assessment process**
  - Look at a range of flood events (including 1%)
  - Consider thresholds for “assurance”

- **Current guidance (EC 6067) will be updated.**
- **Currently implementing pilots**
# Inspection Checklist Link

## 1-17. Inspection Checklist - NFIP Finding Lookup Table

<table>
<thead>
<tr>
<th>Inspection Checklist Item</th>
<th>Inspection Checklist Rating</th>
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<th>NFIP Finding</th>
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1. Finding is lowest of ratings from checklist items 6-1 and 6-2.
Levee Screening Links

- Freeboard
- Embankment Protection
- Embankment and Foundation Seepage
- Settlement
Risk Communication Launch

- Launch the cultural shift to begin talking about levees in a risk context
- Basic starting framework – Levee System Summary
- Promotes sponsor engagement as a priority
- Recognizes implementation will need to be phased
- FEMA coordination is a requirement
- Anticipate starting Fall 2014
Question #3B – for FEMA

Now that the USACE has developed all this risk information -

How does FEMA plan to use it?
How Does an Owner Get a Levee System Accredited?

Follow FEMA Procedure Memorandum (PM) No. 63, issued 09/02/2010, to demonstrate compliance with 44 CFR 65.10
How Does an Owner Get a Levee System Accredited? (continued)

PM 63 includes a checklist to determine if all of the required elements of 44 CFR 65.10 are included in accreditation submittal:

► Design criteria:
  • Freeboard, Closure, Embankment Protection and Foundation Stability, Settlement, Interior Drainage, Other Criteria (as needed)

► Operation Criteria:
  • Flood Warning System, Plan of Operation, Periodic Operation of Closures, Interior Drainage Plan

► Maintenance Criteria:
  • Documented in an officially adopted plan including inspection frequency and responsibilities
# Levee Accreditation Requirements

<table>
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<tr>
<th>NFIP REQUIREMENTS (44 CFR 65.10)</th>
<th>COMPLIANCE CAN BE DETERMINED THROUGH</th>
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<td>Interior drainage systems</td>
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<td>Maintenance Plans</td>
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*Not guaranteed to be performed for every Screening/Risk Assessment.

Audience Feedback #1

- Any questions concerning the approach that the two agencies are taking.
- Last year’s question - When should this USACE data (both positive and negative) be supplied to FEMA?
  - Always
  - Only when the status changes
  - Only when requested by the sponsor
- Does this interagency cooperation meet your expectations; any concerns?
Question #4 – for USACE

Levee areas of interest

Any updates on other levee activities?
Other USACE Updates
National Levee Database

- 2,500 levee systems
- 14,700 miles
- Other agency levees
  - BOR = 172 miles
  - Miami Conservancy District = 2.6 miles

FEMA data is merged and under review
FEMA MLI/NLD Integration

- Differences between MLI and NLD require some changes to the NLD to capture all the MLI information
- NLD changes to incorporate MLI data will be part of overall NLD improvement process occurring over the next year
- FEMA and USACE have established a data management working group
NLD Improvement - What we heard

- Great first start
- Make it look like Google
- Improve the way data can be added with easy to follow step process
- Improve the web site to provide quicker way to see levee information
- Current search tools are too complex for the average user
NLD Path Forward

- Improve home page and simplify search capabilities
- Simplify the Data Management Tool to provide a step by step built in process for data loading
- Improve the mapping view of the NLD: google-ish
- Improve ability to ‘download’ the data from the NLD
New Direction for the Rehabilitation Program

- Supplement local and state efforts, not replace them
- Promote and encourage sponsor led activities for risk reduction
  - Evacuation planning/communication/participation in FRM activities/active maintenance program
- Levee Safety Program activities will help the sponsor prioritize and plan their FRM activities
- Two-Step Process
  - First – Interim Guidance, addresses eligibility for levees/SWIF remains an option
  - Second – Develop new eligibility criteria, solicit ideas, public rulemaking, issue final policy
Section 408 Guidance

- Release scheduled for summer 2014
- Provides consolidated/clarified processes for requests to modify USACE civil works projects
- Content includes –
  - Clarified the role of non-federal sponsors of federal projects
  - Refinement of requests that require HQ review
  - Clarified NEPA requirements
Audience Feedback #2

- How many of you are aware of the NLD?
  - Tried to use it? Impressions?
  - Do you like the USACE’s direction for improvement?

- Any reaction to the new directions for the Rehab program?
  - Increased sponsor collaboration?
  - 2 step process?

- Concern with possible changes to 408 guidance?
Question #5 – for FEMA

Levee areas of interest

Any updates on other levee activities?
Other FEMA Updates
Use of Best Available Data
FEMA’s Data Management

- **Gathering** all available data for studies from communities (e.g. LLPTs, discovery meetings) and other federal, state and local sources
- **Tracking** levee status information in the levee status tracker, soon to be linked to the NLD
- **Disseminating** the available information via FIRMs, USACE coordination, and, when available, flood risk products now available online
Flood Risk Products: Levee Non-Regulatory Datasets

- The Map Service Center website will have available products
- Considered enhanced (optional) datasets
  - Not required to satisfy deployment metrics
  - Communities will have to specifically request (and fund) development
- Non-regulatory Levee datasets can be issued for all levee types
- Source data:
  - Primarily from communities
  - Regulatory analysis
  - Historical events
Processing Studies Involving Levees

- FEMA is working to prioritize and continue any study impacted by the development of the Levee Analysis and Mapping approach
- Evacuation plans to be added to accreditation requirements
Levee Analysis and Mapping Procedures

- 25 Pilot studies started in 2013
- FEMA Regions have committed to another 40 to 50 studies to start in 2014
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The Homeowner Flood Insurance Affordability Act: Changes to Zone A99 and Zone AR Request Requirements

Zone AR: Restorations Zones
- Removes the requirement to have Federal funding
- Available to levees in riverine and coastal* areas

Zone A99: Adequate Progress
- Removes the requirement to have Federal funding
- Available for construction or reconstruction
- Present value of the structure can be used to show the levee is:
  - 100% of costs are authorized
  - 60% of costs are appropriated
  - 50% of the cost has been expended
  - 50% of the levee is completed based on critical features
Use of CLOMRS – How to Plan Your Levee Investment

- A Conditional Letter of Map Revision will provide FEMA's comment on a proposed project
- The letter does not revise an effective NFIP map; it indicates whether the project, if built as proposed, would be recognized by FEMA as changing the flood hazard zones as intended
- The MT-2 forms are available online
Longer Range Vision

Future
FEMA Looking Ahead

- FEMA can move further away from a binary levee approach.
- Must manage expectations.
Audience Feedback #3

- FEMA is emphasizing stakeholder interaction, including use of best available data, non-regulatory products, LAMP and LLPTs – is it working?
- Do you think the legislative changes to Zones AR/A99 will have an impact?
- Can the CLOMR process help you with you levee investment planning?
- Any positive or negative reaction to FEMA moving to a more risk based approach?
Question #6

Any initial clarifications on who does what on the levee safety program mentioned in the legislation?
Last Opportunity – Final Audience Feedback

- Have you noticed an increase in cooperation between FEMA and the USACE?
  - Recommendations for further cooperation?

- Have you noticed an increase in either the USACE’s or FEMA’s willingness to engage stakeholders and do you have any recommendations for the future?

- Any other issues/concerns or questions you would raise?
WE ALL STILL HAVE WORK TO DO!