USACE Emergency Action Plan Guidance


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Oroville Dam 2017

- With Lake Oroville filled to the brim … a collapse could cause a “30-foot wall of water coming out of the lake”
  - Cal-Fire Incident Commander Kevin Lawson
  February 13, 2017
EAP Topics

- Lessons learned, priorities, path forward
  - USACE EAP guidance
  - EAP maps
  - Exercises

http://www.publications.usace.army.mil
USACE Publications, Engineer Circulars
Bottom Line for Planning CoP

- The Guidance provides for agency consistency in EAP content and implementation:
  - Reference to Map standards
  - Documented, exercised and pre-coordinated with local emergency managers. First line for detection, notification, monitoring

- Operations Project Managers have specific responsibilities for Incident Management and Warning Dissemination
EAP Guidance Overview

- **Scope** – dams and levees, risk informed
- **Vision** – Self-service (examples vs. templates)
- **Purpose** - *expands* upon existing federal guidance:
  - *Refinements*, based on USACE portfolio & organization structure
  - *Stresses consistency* for key plan components
    - Plan organization, communications, inundation maps, exercises, incident management authorities and responsibilities, reporting evidence of distress, security provisions and review and approval requirements
- **Recommended organization** for all USACE project EAPs
Applicability - EAP Guidance Update

- All dam projects subject to ER 1110-2-1156
  - Owned, operated, maintained by USACE
  - Any dams which we work on for clients

- Levee projects
  - Required if USACE performs O&M
  - Encouraged for all others

- Inundation maps subject to EC 1165-2-215, “Use and Dissemination of Dam and Levee Inundation Map Data”
Previous Guidance

- EC 1110-2-6074 supersedes:
  - ER 1110-2-1156 Chapters 13 and 16
  - EC 1165-2-215 (expired)
Significant Differences
From Previous USACE Guidance

- Level of engagement with emergency managers
- Exercise frequency
- Inundation map standard
- EAP, map & data dissemination policy
- Emergency levels
- Notification scripts
- Incident management roles & responsibilities
Consistency with Other Federal Guidance Documents*

- Priority to involve emergency managers
- Plan organization
- Plan name & evacuation planning (dam guidance)
- Project emergency levels
- Evacuation responsibility (immediate downstream)
- Inundation maps & dissemination

* FEMA 64, FEMA 946, DHS-Emergency Preparedness Guidelines for Levees
EAP Guidance Contents

- **Body** – 19 pages
  - 16 sections/topics
- **10 appendices** – 60 pages
  - Checklists
  - Exercise details
  - Example emergency notifications
  - Example non-disclosure agreement
  - Map standard
EAP Components Requiring Consistency Throughout USACE

- Name = EAP
- EAP organization
- Internal and external communications
- Inundation maps
- Exercise level & frequency
- Incident management authorities & responsibilities
- Reporting evidence of distress
- Review & approval

Write down this list! (if you remember nothing else from this briefing...)
EAP Organization

Rationale: Consistent organization enhances readability and effectiveness

1. Summary of EAP responsibilities
2. Notification Flowcharts  
   **Required:** Consistent order of content
3. Statement of Purpose
4. Project Description
5. Incident Response Processes  
   **Desired:** Consistent section titles
6. Roles and Responsibilities
7. Preparedness
8. Inundation Maps
Communications: Project Emergency Levels

Rationale: Alignment with federal guidelines ensures common understanding

- Primary purpose is clear *external communication* of project condition and incident management activities being undertaken by the project owner.

- **High flow emergency**
- **Non-breach emergency**
- **Potential breach emergency**
- **Imminent breach emergency**

Related concepts:
- Emergency Declaration
- Internal dam safety issue categories

Previous terms: failure imminent or has occurred, failure situation is developing, non-failure emergency condition
Communications: Warnings to Public in Immediate Vicinity

Rationale: Areas immediately downstream of a project must be communicated with quickly

- Required: Description of procedure & means for warning dissemination directly to the general public in the immediate vicinity of the project
Inundation Map Dissemination

- **Do** distribute EAPs with inundation maps to federal, state and local emergency management authorities (EMAs)
  - To included non-editable and editable electronic formats

- Commanders can choose to distribute directly to the public if benefits outweigh risks
  - Flood emergencies
Inundation Map Standard

Rationale: A consistent format promotes understanding
When to Use the Map Standard

- **EAP maps**
- **Scenarios**
  - Planning
  - Exercises
  - Incidents
- **Flood inundation mapping**

The USACE Flood Inundation Mapping Cadre and MMC-MCX have used the map standard in support of numerous flood emergencies covering more than 13,000 stream miles. Events have included dam safety incidents, levee overtop/breach risks and riverine flooding both with and without spillway releases from flood control dams.

Port Arthur Levee System – Hurricane Harvey 2017
**Event Timeline**

- **25 Aug 17** - Reservoirs are empty prior to Hurricane Harvey
- **28 Aug 17** - Surcharge releases from Addicks and Barker begin
- **29 Aug 17** - Water begins flowing around north end of Addicks
- **29 Aug 17** - Releases increase from Addicks and Barker
- **30 Aug 17** - Addicks and Barker reach peak elevations
- **03 Sep 17** - Releases decrease from Barker
- **09 Sep 17** - Releases decrease from Addicks
- **15 Sep 17** - Surcharge releases end

**Model Animation**

https://www.dvidshub.net/video/548079/usace-harvey-timeline
EAP Guidance Path Forward

- Revision to engineer regulation (2020)
  - EAP templates
  - Separate guidance for dams and levees
  - More prescriptive on some topics
  - Targeted priorities

- 2017 External peer review comments
  - National team of EAP experts & oversight function
  - Stronger emergency management involvement
  - EAP scope vs. surveillance and monitoring plans
  - District command priority
How do I provide comments?

- Written comments should be emailed to HQ-EAP@usace.army.mil
QUESTIONS?

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Questions?

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