

# USACE Emergency Action Plan Guidance

EC 1110-2-212, Guidance for Emergency Action Plans for Dams and Levees

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August 2016



# Topics – USACE EAP Guidance

- EAP guidance update process
- EAP guidance overview
  - ▶ Purpose
  - ▶ Applicability
  - ▶ Contents
  - ▶ EAP elements requiring consistency throughout USACE



# Purpose – EAP Guidance Update

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- Address 2013 Dam Safety IEPR Comments
  - ▶ 17 – guidance update for EAPs & exercises
  - ▶ 18 – clarify incident management roles & responsibilities
  
- Achieve EAP consistency for dams and levees, key areas:
  - ▶ Name = EAP
  - ▶ Organization
  - ▶ Communications
  - ▶ Inundation maps
  - ▶ Exercise level & frequency
  - ▶ Incident management
  - ▶ Review & approval



# Applicability - EAP Guidance Update

- All dam projects subject to ER 1110-2-1156
  - ▶ Owned, operated, maintained by USACE
- Levee projects
  - ▶ Required if USACE O&M, encouraged for all others
- Inundation maps subject to EC 1165-2-215
- The EAP guidance update supersedes:
  - ▶ ER 1110-2-1156 Chapters 13 and 16
  - ▶ EC 1165-2-215 (expired)

*Coordinated with upcoming levee EC*



# EAP Guidance Overview

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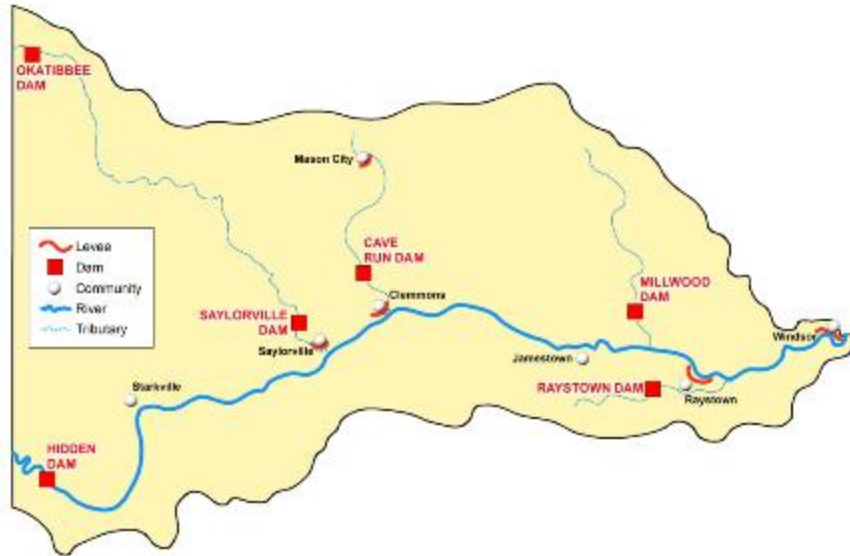
- Scope – dams and levees
- Vision – Self-service (examples vs. templates)
- Purpose - *expands* upon existing federal guidance:
  - ▶ *Refinements*, based on USACE portfolio & organization structure
  - ▶ *Stresses consistency* for key plan components
    - Plan organization, communications, inundation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





# Vision - EC 1110-2-212

## Big 'Ol Dam Emergency Action Plan



I. Responsibilities

V. Incident Response

II. Notifications

VI. Roles & Responsibilities

III. Purpose

IV. Project Description

VII. Preparedness

VIII. Inundation Maps

**Consistent Guidance –**  
Consistent EAPs for dams,  
levees and systems

**Consistent Organization -**  
readability



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# EAP Guidance Contents

- Body – 17 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

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

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





# Name = Emergency Action Plan

The name of the plan is less critical than ensuring that a joint emergency planning process is taking place that includes the owner/operator of a dam or levee and state and local emergency management authorities. Multiple naming conventions are used for emergency plans developed by the project owners/operators, emergency management authorities, and local communities. To minimize confusion, USACE policy is to use the '[Project Name] Emergency Action Plan (EAP)' for plans required by this guidance to be prepared and implemented by dam and levee project owners/operators.

Note: DHS 2012 guidance for levees introduced the term emergency preparedness plan (EPP), but the scope of an EPP is very similar to federal EAP guidance.



# EAP Organization

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Rationale: Consistent organization enhances readability and effectiveness

1. Summary of EAP responsibilities
2. Notification flowcharts
3. Statement of Purpose
4. Project Description
5. Incident Response Processes
6. Roles and Responsibilities
7. Preparedness
8. Inundation Maps

*Required: Consistent order of content*

*Desired: Consistent section titles*



# Internal and External Communications<sup>11</sup>

Rationale: Consistent communication procedures by USACE nationwide minimizes confusion

- Notification flowcharts
- Project emergency levels
- Emergency announcements & communications
- Warning dissemination to public in immediate vicinity



# Communications: Notification Flowcharts

Rationale: Prompt notification is crucial during emergencies

- Critical EAP content (BLUF)
  - ▶ Establishes external *and* district-internal, command chain and CoP upward reporting procedures

Common notification recipients to incorporate into flowcharts

Component	Dam Safety Element	Levee Safety Element
USACE Internal—District Command Chains	Dam Safety Program Manager (DSPM) Dam Safety Officer (DSO)	Levee Safety Program Manager (LSPM) Levee Safety Officer (LSO)
	Water Management/Regulator	Water Management/Regulator
	District Emergency Manager	District Emergency Manager
	District Commander	District Commander
USACE Internal—Higher Command Chains	Major Subordinate Command (MSC) Headquarters (HQ)	MSC HQ
External—Principal Local Officials	Local and State Emergency Management Authorities	Levee Owner/Sponsor Local and State Emergency Management Authorities
External—Other Federal Officials	National Weather Service	National Weather Service
External—Public	Downstream population affected	Individuals and communities in leveed areas



# 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



# Communications: Emergency Announcements

Rationale: Pre-scripted announcements ensure timeliness & that all important information components are addressed

Announcement	Message Component
Emergency Signal	Level—alert, watch, or warning
Source	District
Threat	Project condition: non-breach, potential breach, or imminent breach Flow condition: high flow or normal flow
Location	Project name and location Rivers/stream(s) affected Impact area boundaries (easily understood)
Guidance	Nature of emergency/condition Source(s) of additional information Action for public to take
Time	Expected course of events





# Communications: Warnings to Public in Immediate Vicinity

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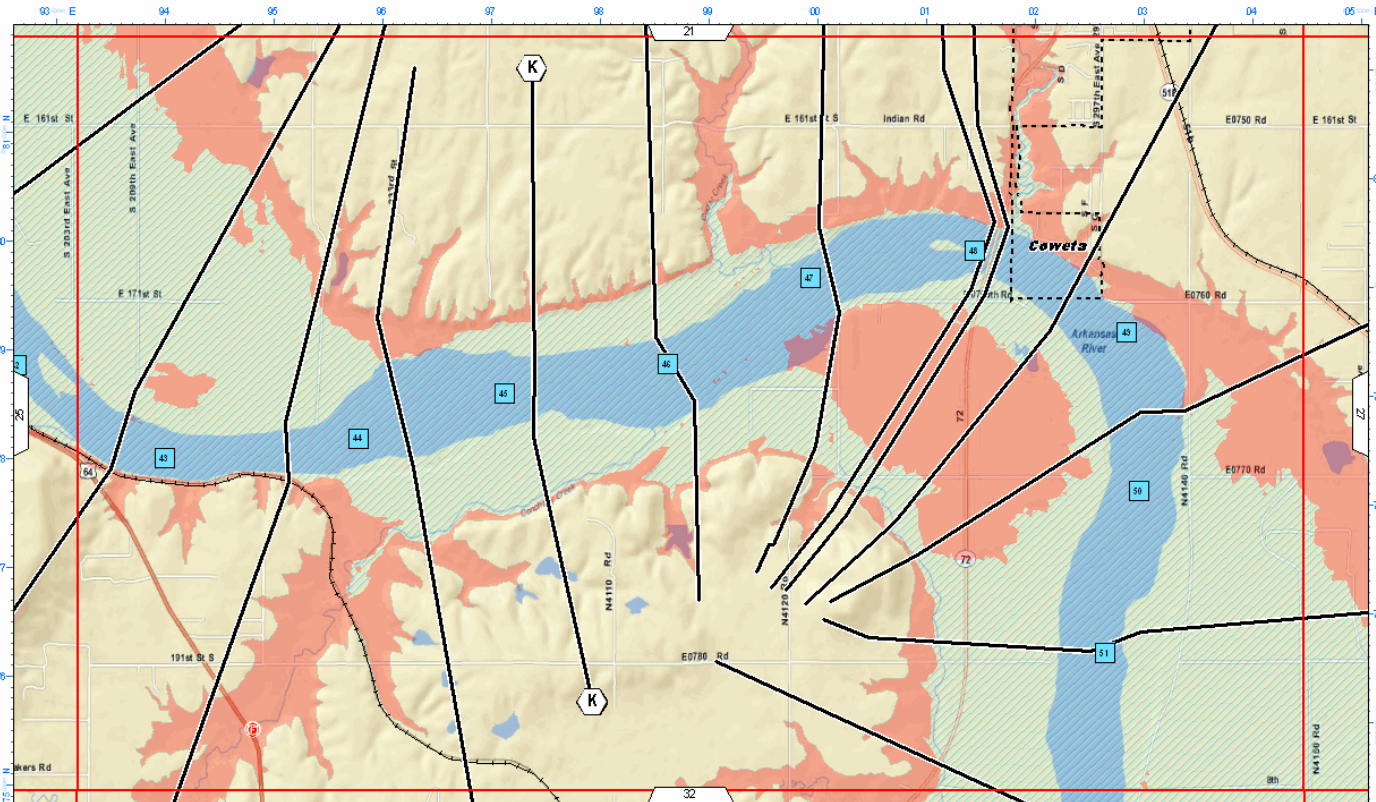
Rationale: Areas immediately downstream of a dam must be evacuated quickly

- Required: Description of procedure & means for warning dissemination directly to the general public in the immediate vicinity of the project
  - ▶ National Weather Service and local emergency management have primary warning and evacuation authority
    - Pre-coordinate any necessary USACE actions with official warning & evacuation authorities. Clearly identify where & under what circumstances USACE will undertake public warning actions.



# Inundation Map Standard

Rationale: A consistent format promotes understanding



Failure Wave Data at Cross Section : K

Scenario	Arrival Time	Arrival Elevation	Peak Time	Peak Elevation
Normal High	00:10:20	549	01:00:00	574.6
Maximum	00:07:32	595	00:19:00	605.5

All Times in HH:MM:SS Format, All Elevations in Feet (Ft@D68) \*N41 - No Additional Inundation Compared to Non-Fail Event

USNG Grid Zone 15S  
100,000 Meter Grid ID TV  
1:31,680 or 1 inch = 1.2 Mile



**Study Dam**  
**Dam Name**  
National Inventory of Dams (NID) ID: NIDID  
Dam Owner: U.S. Army Corps of Engineers  
Design District  
Section of USGS Quad : 35095-H6 Coweta

For Official Use Only  
MONTH YEAR  
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# Exercise Levels and Frequency

Exercises	Seminar	Drill	Tabletop	Functional	Full Scale
Classifications					
DSAC/LSAC 1 and High Hazard Potential	Annual	Annual	Biennial, recommended for odd years	Biennial, recommended for even years	At DSO/LSO discretion
DSAC/LSAC 2 and High Hazard Potential			Biennial	At DSO/LSO discretion	
DSAC/LSAC 3, 4 or 5 and High Hazard Potential and All Significant Hazard Potential			Year 5, 10, etc.		
All Low Hazard Potential	Initial orientation seminar or drill. Subsequent exercises at the DSO/LSO discretion.				



# Incident Management Authorities and Responsibilities

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- Shared by command, safety program, emergency management & operations functions
  - ▶ Authority to perform safety program activities, including during incidents, is provided by Congressional project authorizations and implemented by ER 1110-2-1156 and EC 1165-2-215
  - ▶ Authority to perform emergency operations is provided by PL 84-99 and implemented by ER 500-1-1 and EP 500-1-1



*Inserted specifically to address  
Dam Safety IEPR comment*



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# Incident Management - Project Emergency Level & Emergency Declaration

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- ▶ **Project emergency level** – applies to USACE projects
  - Necessary and standardized per federal guidelines
  - Established by District Commander or delegate, thru dam/levee safety chain
- ▶ **Declaration of emergency** – applies to **all** emergencies
  - Formal declaration necessary to implement Civil Emergency Management Program (activate EOC)
  - Declared by District Commander or delegate, thru emergency management chain

*Be prepared to eliminate confusion*



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# Incident Management Roles and Responsibilities

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Rationale: Broad internal understanding of the USACE incident management structure ensures rapid decision making to protect lives and property while preserving the chain of command

- District Commander
  - ▶ Declares and manages incidents and emergencies
  - ▶ Decides courses of action to assure life safety and reduce risk of project failure
  - ▶ Coordinates decisions with higher command when regional or national impacts may occur





# Incident Management Roles and Responsibilities

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- Dam/Levee Safety Officers
  - ▶ Serve as principal advisor to District Commander for dam and levee safety incidents
  - ▶ Upward reporting in dam/levee safety chain
  - ▶ Advised by
    - Dam/Levee Safety Program Manager
    - Dam/Levee Safety Committee



# Incident Management Roles and Responsibilities

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- District Emergency Manager
  - ▶ Serves as principal advisor to District Commander for disasters and emergencies
  - ▶ Upward reporting within emergency management chain
  - ▶ Provides overall management of USACE emergency/disaster operations
  - ▶ Primary point of contact with state and local Incident Managers within the National Incident Management System



# Incident Management Roles and Responsibilities

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- Operations Project Manager
  - ▶ District manager on site during project incidents and emergencies
  - ▶ Responsible for routine inspections and notifications of distress to district office including dam/levee safety and water management functions
    - Details to be documented in project O&M manual, EAP and water control manual

*Other roles - too much inconsistency to address in guidance (district-specific)*



# Incident Management - Coordinating Project Emergency Level & EOC Activation Level

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Project Emergency Level / EOC Activation Level	I – Normal Operations	II – Emergency Watch	III – Partial Activation	IV – Full Activation
High Flow Emergency Non-Breach Emergency	--	Based on severity, hours of field operations and required EOC posture		
Potential Breach Emergency	--	--	Based on severity, hours of field operations and required EOC posture	
Imminent Breach Emergency	--	--	--	X

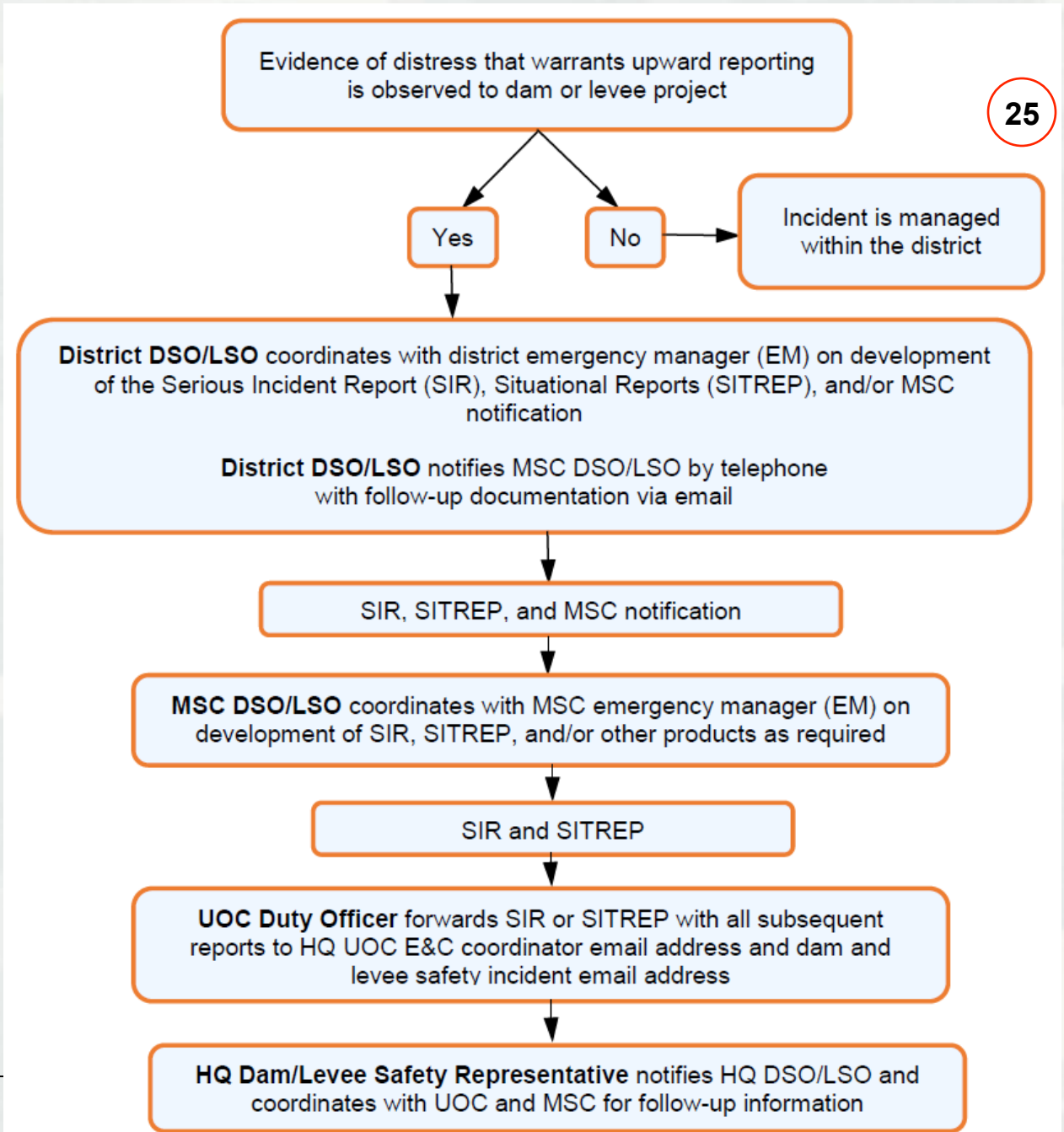
*Synchronize the dam/levee safety & emergency management playbooks*



# Internal Incident Reporting

*Ensure district, MSC & HQ's chain of command is aware and engaged*

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# EAP Review and Approval

	District	MSC
<b>Projects with new EAP or significant update</b>	Formulate, recommend, and implement	Review and approve
<b>All projects</b>	Annual review required; update when needed. Update notification list annually.	Review during Periodic Inspection/Assessment

