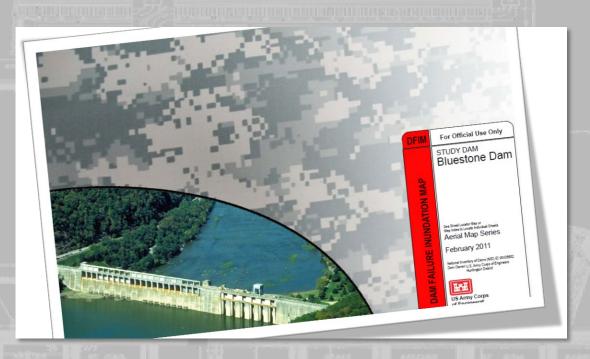
Engineer Circular 1110-2-6075: Inundation Maps and Emergency Action Plans and Incident Management for Dams and Levee Systems

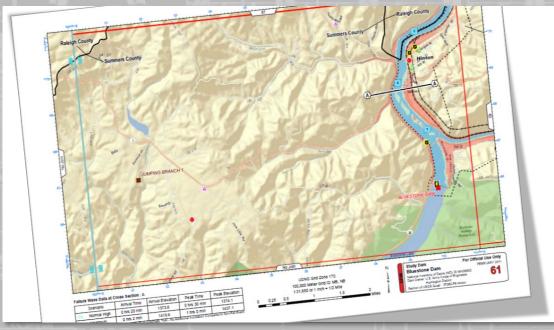
Phoebe Percell, USACE Chief Of Dam and Levee Safety

December 9, 2020











Agenda



- Overview of the policy
 - Inundation Maps
 - Emergency Action Plans
 - **Incident Reporting**
- **Funding**
- Questions



EC 1110-2-6075 – Summary



- Published October 1, 2020 active for two years
- Applies to USACE operated and maintained levee systems
- Supports consistent approaches for inundation maps, emergency action plans (EAPs), and incident management
- Default: share inundation maps with the public
- National Inventory of Dams/National Levee Database are primary public-available data sources



EC 1110-2-6075 – Inundation Maps



- USACE-produced inundation maps to be released to the public
- Maps can show the possible extent of flooding due to levee or dam failure or overtopping
- Maps will meet the same requirements and be published to the USACE Flood Inundation Map (FIM) Database
- Disseminated via
 - National Inventory of Dams
 - National Levee Database
 - Access to Water Resrouces
 - Local dissemination encouraged via national sources



USACE-Produced Inundation Maps



Information Product (Examples)	Information Sharing Policy
Non-editable data (PDF, hardcopy, web viewers) Editable data (Geographic Information System [GIS] format data)	Public* Provide disclaimer *Note option to restrict public release
Supporting data (models, elevation data)	FOUO Federal, state, local agencies Ensure close coordination Consider non-disclosure agreement Consult your Office of Counsel regarding Freedom of Information Act (FOIA) implications
Data owned by others (critical infrastructure GIS data)	Do not share Refer requestor to data owner Consult your Office of Counsel regarding FOIA implications



EC 1110-2-6075 – Emergency Action Plans



- Required for all USACE operated or maintained dams and levees
- Encouraged for federal levees operated and maintained by sponsors
- Should minimally include information on notification, emergency detection, response, incident management, and preparedness
- Developed in coordination with USACE **Operations**
- Includes engaging state and local emergency managers





EAP Plan Organization



- 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
- 9. Flood Fight Techniques

Required: Consistent content order

Desired: Consistent section titles



Exercise Frequency Tied to Risk



Table 5 - Dam and Levee Emergency Exercise Frequency

Exercises	Seminar	Drill	Tabletop	Functional	Full Scale
DSAC/LSAC 1 and High Hazard Potential	Annual Annual	Biennial, recommended for odd years	Biennial, recommended for even years		
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.	At DSO/LSO discretion	4,00,010
All Low Hazard Potential	Initial orientation seminar or drill. Subsequent exercises at the DSO/LSO discretion.				



EC 1110-2-6075 – Incident Management



- Clarifies roles and responsibilities for key actors
- Helps set consistent communication procedures
 - Notification flowcharts (internal and external)
 - Project emergency levels
 - o Emergency announcements/comm.
 - Warning dissemination to public in immediate vicinity





Incident Management Flowchart



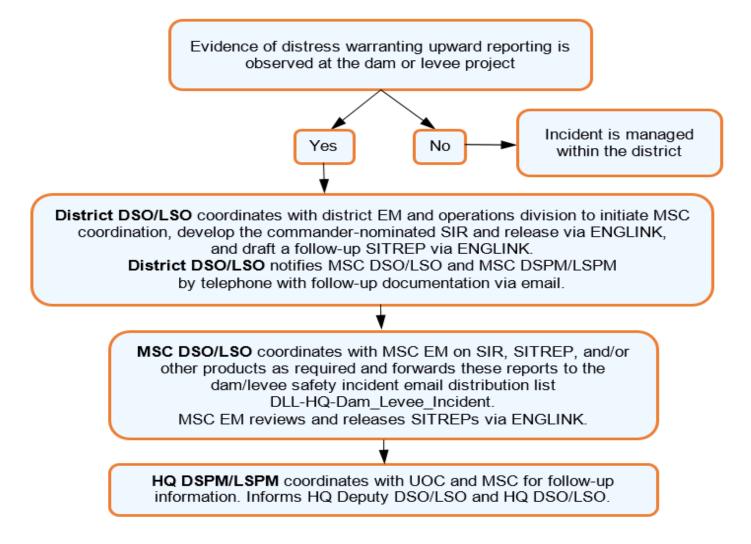


Figure 1 - Reporting Evidence of Distress to Dam and Levee Projects to USACE Operations Center and Headquarters Dam Safety Officer/Levee Safety Officer



Project Emergency Levels



Table 6. Recommended Alignment of Dam and Levee Emergency Level and Emergency Operation Center Activation Levels

Project Emergency Level	IV	III	II	ı
EOC Activation Level	Normal Operations	Emergency Watch	Partial Activation	Full Activation
High Flow Emergency			verity, hours	
Non-Breach Emergency		operations, a	and required l	EOC
		posture		
Potential Breach Emergency			Based on se hours of field operations, a EOC posture	d and required
Imminent Breach Emergency				X



Products Developed through Other Programs



- USACE can provide assistance through programs such as
 - Floodplain Management Services
 - Public Assistance to States
 - Interagency state-led Silver Jackets teams
- Assistance can include:
 - Compiling and sharing information on floods and flood damages
 - Identifying areas that could be flooded
 - Completing evacuation studies
 - Preparing guides and pamphlets to help others understand flood data
- Maps and products developed by USACE through these programs should meet the standards in the EC
- More information on these programs is available <u>here</u>



Funding



Levee Type	USACE Funding Source	Activity
All levees	Central funds	MMC studies (standard EAP map products, required)
USACE operated and maintained (O&M) levees	Project specific O&M funds	EAP development Exercises EAP maps (district enhancements, optional) Incidents (further guidance for responding to incidents at USACE projects in ER 500-1-1)
Sponsor O&M levees	Inspection of completed works (ICW)	USACE support for sponsor actions Compliance with EAP EC recommended, but not required



Authoritative Sources



EC 1110-2-6075

 https://www.publications.usace.army.mil/USACE-Publications/Engineer-Circulars/

National Levee Database

- Leveed areas, levee EAP scenario maps
- https://levees.sec.usace.army.mil/

National Inventory of Dams

- Dam EAP scenario maps
- https://nid.sec.usace.army.mil/

Access to Water

- Inundation maps for emergency preparedness, basins, flood events
- http://water.usace.army.mil/