

**Appendix E:
Federal Emergency Management Agency (FEMA) Criteria for Evaluating
Emergency Action Plans for Dams and Impoundments**

Toward Developing More Protective Impoundment EAPS
according to the following
FEMA Dam Safety Guidelines:

Preparedness: FEMA recommends that preparedness plans (to prevent possibility of dam failure and /or limit its impact) be included in the EAP. This might include the following:

1. Surveillance (for unattended dams a remote surveillance system).
2. Response During Darkness
3. Access to the site –under various conditions, boat, snowmobile, helicopter etc.
4. Response during adverse weather
5. Alternative systems of communication
6. Emergency supplies and information
7. Stockpile materials needed for emergency repair.

Emergency Detection, Evaluation and Classification: FEMA recommends that the conditions, events or measures for detection of a breach be listed in the EAP. FEMA recommends that the methods for collecting data and evaluating measures be also listed and that formulas (rule curves) for early warning detection be also devised.

In addition, FEMA recommends that emergencies be classified by severity and urgency: 1. Failure has occurred 2. Failure is imminent and 3. Potential failure situation is developing. According to FEMA, no true distinction should be made between classification 1 and 2. In both cases, according to FEMA guidelines, time has officially “run out” and warnings should be issued.

Notification Flowchart: FEMA recommends that the notification flowchart include who is responsible for notifying (typically the dam owner) and who is to be notified. Emergency notification flowcharts should also specify the order of notification, be updated regularly and be posted in clear view at the dam site. In terms of the notification order, FEMA recommends that local emergency management persons be notified first. FEMA advises the following order: a. Local emergency management, b. appropriate federal and state managers, c. residents, d. operators of other dams, e. National weather service, f. news media

Inundation Maps: FEMA recommends inundation maps of potential impact areas be included for both “sunny day” failure conditions and “flood failure” conditions, by which dam owners prepare for dam failures at extreme peaks in water levels.

Addendums: FEMA EAPS are also to include appendices related to 1) site-specific concerns, 2) plans for training and 3) exercise of the EAP as well as include reports and summaries of prior dam breaks and incidences.