



## Maine Office of Dam Safety Fact Sheet #11:

# Emergency Action Plans

There are many dams in Maine that have a potential to cause loss of life and considerable property damage if they were to fail. This potential for damage is due largely to the dams' height, location and the quantity of water being stored. The Maine Office of Dam Safety attempts to minimize these risks through an active dam safety inspection program but planning for potential emergencies is necessary to further ensure public safety should a dam failure occur.

### **Planning Required**

Maine State Statute requires development of Emergency Action Plans (EAP's) for dams under the State's jurisdiction classified as having a high or significant hazard potential (see [MRSA Title 37-B §1126](#)). Within 6 months after the determination of classification, the owner of a dam under the commissioner's jurisdiction that is classified as high or significant hazard potential shall prepare an emergency action plan, which must be updated every 2 years. Such emergency action plans must be reviewed for adequacy by the department. EAP's must follow a model plan supplied by the department. The model EAP can be accessed online at this link: [maine.gov/mema/hazards/dam-safety/emergency-action-plan](http://maine.gov/mema/hazards/dam-safety/emergency-action-plan).

### **What goes into an EAP?**

As outlined by [MRSA Title 37-B §1126](#), an EAP must include the following pieces of information:

- 1) Notification Plan
  - a) **Flow Chart:** This should include the titles of local and state officials to be informed of a pending or actual emergency at the dam. The flowchart should be presented in a clear and logical sequence of calls to inform appropriate local and state officials.
- 2) Identify Impacted & Inundated Areas
  - a) **Inundation Map:** Perhaps the most effective way to identify where flooding is likely to occur is using an inundation map. The map(s) should be drawn at a scale that is able to accurately portray all areas that could be impacted or inundated if the dam is breached.
  - b) **Addresses & Contact info:** If desired, the addresses and contact information for residents & businesses within the predicted floodzone can supplement the inundation map to hasten the notification and evacuation of those within the floodzone.
- 3) Actions to be taken during an Emergency Situation or Developing Incident
  - a) **Monitoring:** Every dam owner shall monitor or assign monitors to the dam during periods of heavy precipitation, flooding, unusual hydrologic events, and potentially dangerous structural conditions. The monitor(s) must be properly trained to, and given authority to, operate the dam and its appurtenances under normal and adverse conditions. The monitor(s) must also be familiar enough with the dam that they can recognize signs of abnormal activity or deterioration. Timely response to a potential dam emergency is critical to protecting the lives and property of those downstream of the dam, and the information given by the monitor to local authorities will be used in determining future actions spelled out in the EAP.



**b) Preventative Action:** The dam owner should indicate actions that the monitor may take to correct a malfunction of the dam. The dam owner should also provide the monitor with a list of preventive/mitigative measures to be undertaken during emergency situations.

**c) Warning:** The dam owner should provide a communication system whereby the monitor can effectively communicate with the designated parties in the EAP during emergency situations. If the owner does not have the capacity to notify all persons in the potential inundation area, they should collaborate with relevant federal, state, county, and local officials to develop a method to effectively warn those downstream of an impending failure or emergency situation.

**d) Evacuation:** The dam owner must incorporate a map in the EAP indicating the areas below the dam that would be flooded if the dam were to fail. The local community will use this map in planning and implementing the evacuation of personnel and material from the flooded area.

### **Dam Owner's Responsibilities**

It is essential for the dam owner to collaborate with all the communities that could be affected by a failure at their dam when developing their EAP. For an EAP to be effective all parties must understand the role they will play in the response and recovery to a failure at the owner's dam. To achieve this understanding, or readiness, the EAP must be periodically reviewed and updated (by law, once every 2 years). To further improve readiness, owners should collaborate with relevant local, county, state and federal officials to test an exercise their EAP.

After approval of the EAP by MEMA, the owner shall ensure that copies of the plan are distributed to the appropriate officials. These include but aren't limited to local & county emergency management, police & fire departments, and upstream & downstream dam owners.

Dam owners and operators must be trained in monitoring and operating the structure and be prepared to act promptly and efficiently when a dam begins to show signs of failure. Early identification of hazardous conditions at the dam followed by prompt implementation of actions outlined in the EAP provides the best chance of reducing loss of life from an impending failure.

For more information relative to the design, construction, maintenance and operation of dams, please contact the Maine Office of Dam Safety at the Maine Emergency management Agency at (207) 624-4400. General information is available at <https://www.maine.gov/mema/hazards/dam-safety>. You may also visit our office at 45 Commerce Drive, Augusta ME.

This fact sheet is accurate as of November 2020. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.