

Dam Ownership Fact Sheet



TOPIC: EMERGENCY ACTION PLANNING

Emergency Action Plans Help Dam Owners as Well As People Downstream.

WHAT IS AN EMERGENCY ACTION PLAN?

An Emergency Action Plan (EAP) is a written document that identifies incidents that can lead to potential emergency conditions at a dam, identifies the areas that can be affected by the loss of reservoir and specifies pre-planned actions to be followed to minimize property damage, potential loss of infrastructure and water resource and potential loss of life because of failure or mis-operation of a dam.

The dam owner is responsible for development, maintenance, and exercise of the EAP; however, there are guidelines, tools and assistance available to help owners. City, county and state emergency management directors and state dam safety officials stand ready to partner with dam owners to create and exercise EAPs. An owner can tap into this technical and emergency management expertise and can get additional support by using state and national educational materials, EAP forms and examples, and step-by-step guidelines.

The dam owner initiates the EAP process and both emergency responders and owners will be users of the EAP. The completed document should have had input from emergency managers, state dam safety officials, leaders of downstream communities and, directly or indirectly, everyone who may be responsible for the proper implementation of the EAP. It is important that the dam owner stays involved throughout the entire process.

Emergency Action Plans are a public safety benefit for all citizens.



An EAP takes time, focus and dedication. The time is now. The focus is on saving lives. The dedication is to public safety.

KEY POINTS ABOUT EAPS

- An EAP must clearly specify the dam owner's responsibilities to ensure timely and effective action. Responsibilities of dam owners include: surveillance (monitoring the condition of the dam) and notification (phoning local or state emergency management agency officials in charge of emergency response).
- EAPs are developed by dam owners working with local emergency response managers, dam safety engineers, and state dam safety officials.
- Inundation maps are a key component of the EAP. Inundation maps show areas that may have to be evacuated in a dam emergency. The maps facilitate notification by displaying flood areas and estimated travel times for the floodwaters. New, two-dimensional technologies are available to create inundation maps of areas below dams.
- Dam owners and local emergency responders are primary users of EAPs. A Standard Operating Plan (SOP) is a related document that outlines the normal, non-emergency operation of a dam and is a document for the dam owner and his staff and not a public emergency document.
- Public awareness is a critical component of emergency planning. Many people do not know they may live or work near a dam. Public awareness of an EAP will enhance its effective implementation.
- The EAP defines events that trigger emergency actions.
- An EAP includes a notification flowchart with names and numbers of who will call whom and in what priority.
- Emergency events at dams are infrequent. Training and exercises of EAPs help maintain readiness.
- EAPs should be updated at least once per year and following any changes or new information such as changes in downstream development or new contact information. EAPs should be exercised at least every five years.

DAM OWNER RESPONSIBILITIES

All potentially hazardous dams benefit from some type of an Emergency Action Plan. Obviously dams with a potential for loss of life or damage to infrastructure or high value property in the event of failure (typically identified by regulators as High-Hazard Potential) would be a higher priority and would require a more sophisticated and detailed plan. The regulatory agency responsible for dam safety will probably have criteria for the type and detail of EAP required and the required priority if major repairs are also needed (in many states, dam owners are legally obligated to provide EAPs for certain dam hazards). Regardless of the requirement for a recorded or documented EAP by the Dam Safety Regulatory Program, every dam owner is strongly encouraged to develop some type of EAP that can be used to implement emergency action response in the event of a dam incident.

Regardless of state or federal regulatory requirements, dam owners are responsible and liable for dam operations and any related incidents. EAPs can actually limit a dam owner's liability in the field and in the courtroom because it shows the proper diligence and reasonable actions expected by the law and the dam industry.

Time and effort must be devoted to creating an EAP, filing it appropriately with state and local officials, updating plan details, testing the plan's assumptions and functionality, and following its procedures in an emergency. Completion of an EAP demonstrates that a dam owner is actively attempting to prevent and mitigate harm to persons and property.



HOW TO GET STARTED

Contact your state dam safety regulatory office and your consulting engineer.

You can locate your state's office by visiting the ASDSO website (www.damsafety.org/states). ASDSO can point you toward its industry membership to assist in locating a consulting engineer.

Contact the state and local emergency management coordinator.

The primary means of notification to the public is the National Weather Service (NWS). The NWS has the Congressional mandate for issuing flood warnings, which include dam failure. The NWS has a well-established warning infrastructure that includes access to the Emergency Alert System, Weather Radio network, and Internet-based mechanisms.



Know your:
State Dam Safety Officials &
State and Local Emergency
Management Coordinator

TYPICAL EAP COMPONENTS

- Basic Dam Characteristics
- EAP Plan Overview
- Roles & Responsibilities
- Event Detection
- Emergency Level Determination
- Notification & Communication Flowcharts
- Expected Actions
- Termination
- EAP Maintenance Plan (Review, Exercise & Update)
- Appendices including Inundation Maps for Evacuations

WHO IS RESPONSIBLE?

Dam Owners/Operators

- Identification of emergency at dam
- Initial notifications
- Implementation of repairs
- Security and technical assistance on site

Local Emergency Management and Responders

- Public warning
- Possible evacuation
- Shelter plan activated
- Rescue and recovery
- State of Emergency declaration
- Termination of emergency status

State Emergency Management

- Aid affected area when requested
- Coordinate specialized assistance
- Notify appropriate state agencies
- Determine who does what in an emergency

RESOURCES

ASDSO Resources

The ASDSO website houses the national guidelines on EAP development. Go to DamSafety.Org/ManualsandGuidelines

For more information, videos and tools for dam owners go to: DamOwner.Org

Watch for training in your area sponsored by ASDSO or your State Dam Safety Office.

DHS/FEMA Resources

DHS and FEMA make several publications and videos available to dam owners through FEMA.gov and DHS.gov (search "dam safety")