

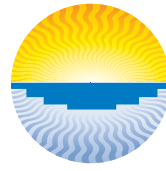
WHAT IS AN EMERGENCY ACTION PLAN (EAP)?

An EAP is a plan of action to reduce potential property damage and loss of lives in an area affected by a dam failure. A complete EAP includes a map of the potential inundation areas, procedures and information for warning downstream emergency management authorities, and other crucial information. At their discretion, emergency managers may add directions to the dam, evacuation routes, and the locations of shelters, emergency resources, businesses, schools, hospitals, nursing homes, residences, and highways at risk.

More HHP dam owners in Kentucky need to complete their EAPs. No dam owner has to shoulder the burden of creating an EAP alone. City and County Emergency Management Directors along with engineers in the Kentucky Department of Environmental Protection (DEP) Division of Water are ready to partner with dam owners in helping them create EAPs. Available resources include technical and emergency management expertise, along with state and national educational materials, EAP forms and examples, and step-by-step guidance.

EAP procedures are developed in coordination with local emergency management officials to ensure compatibility with their needs, systems and functions. The dam owner should be the leader who initiates the EAP process, but the emergency responders are going to be the primary users of the EAP. They and other involved parties need to be satisfied with its accuracy, thoroughness, and likelihood of success. The completed document should have had input from emergency action managers, emergency response organizations, and leaders of downstream communities and development – directly or indirectly, everyone who may be impacted.

DEP dam safety engineers have begun an initiative to greatly increase the number of EAPs for state-regulated dams over the next few years. DEP engineers can schedule workshops and meetings to help dam owners understand the importance of EAPs, their content, forms, procedures and approval processes.



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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 (watching the condition of the dam) and notification (phoning emergency officials).
- EAPs are developed by the dam owners working in coordination with emergency managers and state dam safety officials.
- The emergency manager is the link between the dam owner and emergency responders.
- Dam owners and local emergency responders are primary users of EAPs.
- Public awareness is a critical component of emergency planning. Many people do not know they may live or work near a HHP dam. Public awareness of an EAP will enhance its proper implementation.
- The EAP defines events that trigger emergency actions.
- Inundation maps show areas that may have to be evacuated. The maps facilitate notification by displaying flood areas and estimated travel times for the flood wave arrival.
- An EAP includes a notification flowchart with names and numbers of who will call whom and in what priority.
- EAPs are constantly updated to include new information such as changes in downstream development and new contact information.
- Emergency events at dams are infrequent. Training and testing/drills of EAPs help maintain readiness.

QUESTIONS OR COMMENTS

Phone toll-free 877-410-3551
Email: info@damsafetyaction.org

EMERGENCY ACTION PLANS BENEFIT DAM OWNERS AS WELL AS PEOPLE AT RISK



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An Emergency Action Plan includes procedures for warning those living, working, or enjoying recreation below a dam. Local emergency managers may add evacuation routes to an EAP.

DAM OWNER RESPONSIBILITIES

For most dam owners and managers, a failure of their dam would be a personal as well as a legal calamity. Often the owners are local residents who know many of the people, businesses, schools, and other institutions that would be impacted by an inundation. Some dam owners are neighborhood associations and other organizations whose members reside near the dam's reservoir.

In Kentucky, the owner of a High-Hazard Potential (HHP) or Class C dam has strong legal and social incentives to provide an Emergency Action Plan (EAP). A dam owner is responsible for a dam's operation and any incident related to it. That entails significant liability, especially with HHP dams that can threaten lives as well as property.

Considerable 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. The act of completing an EAP demonstrates that the dam owner has been actively attempting to prevent and mitigate harm to persons and property.

EVERY HIGH-HAZARD POTENTIAL DAM NEEDS AN EAP

An EAP takes time, focus, and dedication. The time is now. The focus is on saving lives. The dedication is to the safety of all Kentuckians.

GETTING STARTED

Kentucky's dam safety law and the regulations that implement it specifically absolve the state of liability from damages caused by a dam failure. Some owners of HHP dams are simply not aware of what an EAP is, what information it gathers, its importance for public safety, and the benefit to them of having it on hand. Other owners believe that periodic state safety inspections are sufficient for an EAP. Not true. Safety inspections and EAPs are very different. Most dam owners are anxious to complete an EAP, but many do not know how to get started or do not realize the urgency.

A typical form for an EAP on a HHP dam can be somewhat intimidating. An extensive amount of detail is required, and a dam owner may feel overwhelmed. That need not be the case. Creating an EAP on a HHP dam is a process that involves a partnership with the state, the county, and the community.

TEAM UP WITH THE EXPERTS

The best way to begin is by drawing on the expertise of state and county officials who will be part of your EAP team. Phone or stop by the Kentucky Department of Environmental Protection (DEP) Division of Water office in Frankfort. The engineers can provide templates and forms to assist dam owners with EAPs. Some of these can be viewed at: www.damsafetyaction.org. Dam safety program engineers also have other information to help with EAPs and dam safety. Dam owners may contact the dam safety office at:

Kentucky Dept. of Environmental Protection
Division of Water
200 Fair Oaks Lane, Fourth Floor
Frankfort, KY 40601
Phone: (502) 564-3410
Email: shane.cook@ky.gov

Emergency Action Plans are a Public Health and Safety Benefit for Everyone

Dam safety staff will be able to provide much of the technical information about the dam from records of its construction and inspections. Then make time to sit down with the city or county Emergency Management Director (EMD). The county courthouse or city hall will have the EMD's name, phone numbers, and location. The EMD will know how and where to gather much of the additional EAP information needed, other professionals who can be called upon for help, and precisely which details are most important to gather first. Working as an EAP team, priorities can be established and a reasonable timetable for completion of the EAP can be developed.

DEP RESOURCES:

The DEP dam safety program can provide dam owners with sample EAP forms, guidelines, and other helpful documents. DEP does not have a state-specific template for dam owners and emergency managers to use in developing EAPs for HHP dams. North Carolina has developed an EAP template, and their form can be adapted for use in Kentucky for any size dam. Although the North Carolina template is 68 pages, several contain explanations of terminology and others are most appropriate for larger dams. The template, available at www.damsafetyaction.org, is meant to be user friendly. The resulting EAP may be shorter, depending on the characteristics of the dam and inundation zone.

The Kentucky dam safety program also recommends the possible use of the USDA Natural Resources Conservation Service (NRCS) EAP template. A fact sheet of information on that template, directions on using it, and the form can be downloaded at www.damsafetyaction.org.

NATIONAL RESOURCES

Several national organizations provide extensive training and information for dam owners wanting to complete EAPs. Among them:

- The Kentucky-based Association of State Dam Safety Officials (ASDSO), which welcomes dam owners as members and has an extensive website at www.damsafety.org
- The Federal Emergency Management Agency (FEMA) at www.fema.gov.
- The USDA Natural Resources Conservation Service (NRCS) at www.nrcs.gov.

Following are just some of the materials available.

ASDSO RESOURCES:

<http://www.damsafety.org>

The EAP resources and documents ASDSO provides for dam owners include:

Guidelines and Flyers

- Dam Ownership: Responsibility & Liability
- Owners Guidance Manual: Emergency Action Planning Chapter
- ASDSO Flyer on Emergency Action Planning

EAP Samples and Models

USDA NRCS EAP Guidance

- Fact Sheet on Preparing on EAP
- Instructions and Helpful Hints for Preparation of EAPs
- USDA NRCS Sample EAP

Training Aids for Dam Safety: Modules on EAPs

- How to Develop and Implement an Emergency Action Plan

ASDSO also holds workshops for dam owners at various locations around the United States. These workshops cover several topics, including EAPs. For more information, contact ASDSO at:

Association of State Dam Safety Officials
450 Old Vine Street
Lexington, KY 40507
Phone: (859) 550-2788
info@damsafety.org • www.damsafety.org

FEMA RESOURCES:

FEMA also makes several publications and videos available to dam owners through the website:

<http://www.fema.gov/dam-safety-publications-resources>.

The following resources address emergency action planning and the safety of dams and are free to dam owners, operators, and regulators.

- Training Aids for Dam Safety (TADS): A Self-Instructional Study Course in Dam Safety Practices (FEMA 609DVD)
- Emergency Action Planning Video

- Emergency Action Planning for State Regulated High-Hazard Potential Dams: Findings, Recommendations, and Strategies (FEMA 608)
- Emergency Action Planning for Dam Owners (FEMA 64)
- Federal Guidelines for Dam Safety (FEMA 93)
- Glossary of Terms (FEMA 148)
- Hazard Potential Classification System for Dams (FEMA 333)

For information specific to Kentucky, contact:

Federal Emergency Management Agency
3003 Chamblee Tucker Road
Atlanta, GA 30341
Phone: (770) 220-5200

NRCS RESOURCES:

USDA's Natural Resources Conservation Service (NRCS) works with sponsors/owners of HHP dams, many of which fall under state regulation. NRCS has created guidelines and a template for EAPs. A fact sheet on EAPs can be found at:

ftp://ftp-fc.sc.egov.usda.gov/NDSCSMC/EAP/EAP_factsheet.pdf

Instructions for the EAP form are at:

<http://directives.sc.egov.usda.gov/viewerFS.aspx?hid=21519>.

Download the template at:

<http://directives.sc.egov.usda.gov/17388.wba>

For NRCS dam safety programs in Kentucky, contact:

USDA Natural Resources Conservation Service
771 Corporate Drive, Suite 210
Lexington, KY 40503
Phone: (859) 224-7350 Fax: (859) 224-7399

