

EVERY HIGH-HAZARD POTENTIAL DAM NEEDS AN EAP



ARE YOU AT RISK?

Dam safety officials categorize dams according to the potential hazard risk to lives and property should the dam fail. A High-Hazard Potential (HHP) dam is one whose failure likely would take lives as well as property. An EAP may save lives and property damage through timely evacuations of those who live, work, or enjoy recreation near a HHP dam.

DO YOU HAVE A STAKE IN DAM SAFETY?

Stakeholders are citizens, business owners, and recreationists in harm's way at times, often without realizing it. Do you like to swim or fish in a Missouri lake? Like to hunt in areas below or near a dam? Like to RV or camp out along the shores of a lake? Enjoy canoeing a stream below a dam? Do you farm land or have livestock in a floodplain? Do you manage a nursing home, hospital or school in an area below a dam? Are you an emergency responder? Do you volunteer for the Red Cross or Salvation Army? Do you regularly need to travel across or have access to an area below a dam? If so, you have a stake in whether a HHP dam has an EAP.



DamSafetyAction.org

LEARN MORE ABOUT EMERGENCY ACTION PLANS

You can find out more about EAP's, dam safety programs in Missouri, and initiatives to increase the number of EAP's on HHP dams. Websites of the Missouri Department of Natural Resources (DNR), the Federal Emergency Management Agency (FEMA), and the Association of State Dam Safety Officials (ASDSO) have information on EAP's.

ASDSO has posted a comprehensive sample EAP for an Oklahoma dam on its website:
www.damsafety.org/media/Documents.

DNR has adapted that EAP form for use by Missouri dam owners. This template can be found online at
www.dnr.mo.gov/env/wrc/damsft/EAP.htm.

This brochure and links to EAP information can be found online at www.damsafetyaction.org. This website is part of an outreach and communications program produced as an information and educational source for dam owners and the public. Supported by FEMA, this program will assist DNR dam safety officials in reaching a goal of 100 percent completion of EAP's on HHP dams.



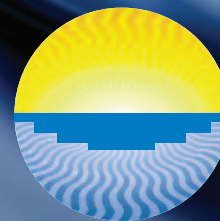
**Lives depend on Emergency Action Plans.
Be an involved citizen.**

QUESTIONS OR COMMENTS

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

ONLY 34 OF 469 STATE-REGULATED HIGH-HAZARD POTENTIAL DAMS IN MISSOURI HAVE EMERGENCY ACTION PLANS

YOUR SUPPORT AND INVOLVEMENT CAN HELP MISSOURI CLOSE THE GAP



DamSafetyAction.org

WHAT IS AN EMERGENCY ACTION PLAN?

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 area, procedures and information for warning emergency management authorities, and other crucial information.



Federally regulated Bagnell Dam on the Lake of the Ozarks has an EAP that has been practiced and updated.



Missouri has hundreds of smaller state-regulated High-Hazard Potential dams, many in suburban areas, that need EAP's.

The Missouri Department of Natural Resources has begun an initiative to greatly increase the number of EAP's for state-regulated dams over the next few years. DNR engineers and technicians are using new technologies to create inundation maps of areas below High-Hazard Potential dams. This will help dam owners complete a vital element of their EAP's.

WHY AN EAP IS A GUIDELINE AND A LIFELINE

Emergency Action Plans are a Public Health and Safety Benefit for all Missourians

WHY AN EMERGENCY ACTION PLAN?

- EAP's save lives. They provide crucial written warning procedures that can help emergency managers evacuate schools, hospitals, nursing homes, and summer camps as needed.
- EAP's are good for business. They may provide warning time for orderly shutdown and perhaps even to remove or secure some assets, data, and equipment.
- EAP's are required for dam safety. Without an EAP all those in the inundation zone may not receive warning. Evacuation and response may be needlessly complicated or even compromised. Transportation, sheltering, food, water and other supplies may be delayed.
- An EAP can protect you, your family, your job, your business, your peace of mind. Any time you're downstream of a dam you're at risk. Even when hiking, fishing, hunting, camping or motoring, an EAP can help get you to safety.

AN EAP IS THOROUGH, URGENT, AND UPDATED

A summary of Missouri guidelines for emergency action planning may be found at:
www.dnr.mo.gov/env/wrc/docs/Dam_Emerg_Action_Planning.pdf

This document, "Dam and Reservoir Guidelines for Community and County Emergency Action Planning," was developed to encourage thorough and consistent emergency action planning. It offers a blueprint to be followed in developing EAP's for HHP dams.

"Residents near a high or moderate hazard dam should become familiar with the dam's Emergency Action Plan."

Missouri State Emergency Management Agency

HIGH-HAZARD POTENTIAL

Each state has a system to determine a dam's Hazard Potential – a situation which creates the potential for consequences such as loss of life, property damage, or other adverse impacts. These adverse impacts may occur in a defined area downstream of a dam or upstream of the dam if there is backwater flooding or a landslide around the reservoir perimeter.

Classification of a dam as High-Hazard Potential (HHP) does not reflect in any way the current condition of the dam (i.e., safety, structural integrity). HHP dams receive more frequent safety inspections.

Missouri regulates dams if they are 35 feet or more in height and meet certain other criteria. The Missouri Department of Natural Resources (DNR) Water Resources Center (WRC) engineering staff assigns regulated dams to one of three hazard classifications based on what lies within the "downstream environmental zone."

Class I and Class II dams are in the HHP category. A Class I dam's downstream zone contains 10 or more permanent dwellings or any public building. A Class II zone contains one to nine permanent dwellings or one or more industrial buildings, or one or more campgrounds with permanent water, sewer and electrical services.

HHP dams are inspected every two years (Class I) or three years (Class II). A safety inspection is not the same as an EAP. This fact may cause confusion among some dam owners/operators. Every state-regulated dam must have an EAP. Yet as of mid-2009, only 34 of 469 state-regulated HHP dams had an EAP, and some of the 34 may need to be updated.

IDENTIFY HHP DAMS NEAR YOU

HHP dams are scattered across Missouri, although 30 of the state's 114 counties do not have any state-regulated HHP dams. Other counties may contain as many as 20 to 60 regulated HHP dams. To view maps of where HHP dams are located see the DNR WRC website Dams of Missouri Maps: www.dnr.mo.gov/env/wrc/damsft/statemap.htm. The site includes a list of dams by county showing the dam's numerical hazard class and which dams are regulated by the state.

The DNR dam maps website provides several ways to locate and identify dams and their hazard classification. For example, select a county map, enlarge the map and find the dam of interest, along with its Missouri Identification number. You can then download the website's Missouri Dam Report by county and use that identification number to search for additional information about that dam, such as when it was built, its height, length, number of acres of water it impounds, whether it is regulated, and its state permit number.

The website also offers a shorter list of just the dams that are regulated by DNR. The website has maps of dams by Missouri legislative districts which show the locations of HHP dams.

Knowing the location of a HHP dam that may impact your home, business, or favorite recreational area is important. But knowing the boundaries of the "hazard area" also is important. This information may not be

clearly defined unless there is an EAP for that dam. A thorough EAP will include an "inundation map" that shows the hazard area.

MAKE CONTACT

Once you have identified the HHP dam of interest, you can determine the EAP status for that dam by contacting one or more of several offices involved.

The best contact may be the Emergency Management Director (EMD) of the county or city where the dam is situated. Call the county courthouse for the name and phone number of the EMD. When EAP's are in process or have been completed, the EMD will be involved or have the EAP on file.

A call to the DNR's WRC office in Rolla also can be helpful. DNR often works with dam owners in development of their EAP and would have a copy of any completed EAP.

**MO Department of Natural Resources
Water Resources Center
111 Fairgrounds Road
Rolla, MO 65401
Phone: 573-368-2177; Fax: 573-368-2193**

If the dam owner is known, you may contact that person or office directly. DNR has the name, address and phone number of dam owners/operators. DNR maintains and updates Missouri dam inspection records and data for the National Inventory of Dams.

When made aware of the importance of EAP's most Missouri dam owners are anxious to comply with the regulation.

You or an organization you know can press for an EAP to be completed. You also can help a dam owner gather information needed to make it the best possible EAP.