

## EVERY HIGH-HAZARD POTENTIAL DAM NEEDS AN EAP

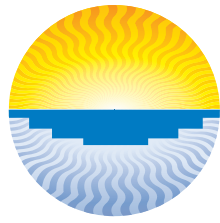


### ARE YOU AT RISK?

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 hunt game in areas below or near a dam? Like to RV or camp out along the shores of a lake or stream? Enjoy swimming or fishing in a California lake or canoeing one of its rivers? Do you farm land or raise livestock in a floodplain? Do you manage a nursing home, hospital or school in a community near 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 EAPs, dam safety programs in California, and initiatives to increase the number of EAPs on HHP dams. Websites of the California Division of Safety of Dams, the California Office of Emergency Services, the Federal Emergency Management Agency, and the Association of State Dam Safety Officials have information on EAPs.

The website [www.damsafetyaction.org](http://www.damsafetyaction.org) contains extensive EAP information and examples, plus links to other sources of EAP documents. This website is part of an outreach and communications program produced as an information and educational source for dam owners, emergency managers, and the public. Supported by the National Dam Safety Review Board, this program will assist California dam safety officials in reaching a goal of 100 percent completion of EAPs 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](mailto:info@damsafetyaction.org)

# MORE THAN 340 HIGH-HAZARD DAMS IN CALIFORNIA NEED AN EMERGENCY ACTION PLAN

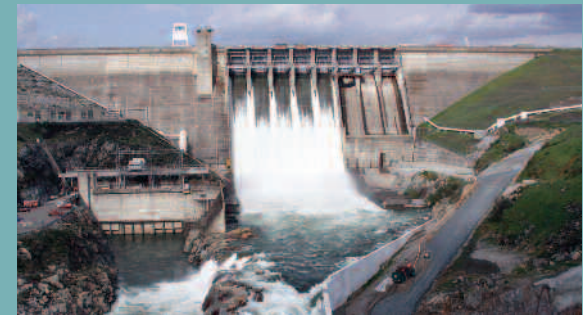
## YOUR SUPPORT AND INVOLVEMENT CAN HELP CLOSE THE GAP



**DamSafetyAction.org**

### WHAT IS AN EMERGENCY ACTION PLAN?

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. The plan details various problems that must be promptly addressed so they do not escalate into dam failure. At their discretion, emergency managers may add more information to the EAP, such as directions to the dam, evacuation routes, and the locations of shelters, emergency resources, businesses, schools, hospitals, nursing homes, residences, and highways at risk.



Federally regulated Folsom Dam has an Emergency Action Plan.



California has hundreds of state-regulated High-Hazard Potential dams that need EAPs. Many are in suburban areas.

The Dam Safety Program in the California Office of Emergency Services (CalOES) lacks the authority to compel dam owners to create EAPs. CalOES does have an initiative underway to increase the number of EAPs for state-regulated dams over the next few years. But meanwhile thousands of families and businesses below HHP dams may be at increased risk. California has developed an EAP form that CalOES Emergency Management Coordinators use to help dam owners complete an EAP. Local Emergency Management Directors also can be helpful in completing lists of those they must notify if a dam is failing.



# AN EAP IS A GUIDELINE AND A LIFELINE

**Emergency Action Plans are a Public Health and Safety Benefit for all Californians.**

## WHY AN EAP?

- **EAPs save lives.** They provide crucial written warning procedures that can help emergency managers evacuate schools, hospitals, nursing homes, and summer camps as needed.
- **EAPs are good for business.** They may provide warning time for orderly shutdown and perhaps even to remove or secure some assets, data, and equipment.
- **EAPs are needed 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, UPDATED, AND TESTED

EAPs contain an extensive amount of technical and emergency response information. Emergency managers in the CalOES Dam Safety Program and at the local level develop most of the information in partnership with the dam owner. EAPs should be reviewed and updated annually, then tested periodically with workshops and drills involving those who will need to respond to an emergency situation.

California guidelines and documents for emergency action planning may be found at the website of the Division of Safety of Dams (DSOD) at [www.water.ca.gov/damsafety/EAP2010.cfm](http://www.water.ca.gov/damsafety/EAP2010.cfm).

The CalOES Dam Safety Program website ([www.calema.ca.gov/hazardmitigation/pages/dam-inundation-program.aspx](http://www.calema.ca.gov/hazardmitigation/pages/dam-inundation-program.aspx)) also has information on inundation mapping regulations.

## 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, environmental destruction, or other adverse impacts. These adverse impacts may occur in a defined area downstream of a dam or even 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.

In California, dams are regulated by the DSOD, but EAPs are the statutory responsibility of CalOES. DSOD determines the hazard classification of a dam based on the potential consequences resulting from the uncontrolled release of its reservoir contents because of a failure or wrongful operation of the structure. A highly technical set of factors and criteria that are explained on the DSOD website will determine hazard classification. The DSOD website also provides summaries of laws and regulations pertaining to dams.

The classification of dams can be changed if the hazard potential has changed. When the failure of an upper dam would likely cause failure of a lower dam ("cascading"), the consequence of the lower dam's failure determines the upper dam's hazard classification.

## IDENTIFY HHP DAMS NEAR YOU

HHP dams are scattered across California, but tend to cluster around population centers. A list of state-



regulated dams in California and their county can be found on the DSOD website ([www.water.ca.gov/damsafety/damlisting/index.cfm](http://www.water.ca.gov/damsafety/damlisting/index.cfm)). Or, at the website [www.Lat-Long.com](http://www.Lat-Long.com), select California and the feature Dams, or narrow the list by selecting the county. Selecting a dam provides a map and satellite view of the dam. Using the map to zoom in on the impoundment and then the satellite image can provide more visual understanding of the terrain.

When you know the county where a dam is located and a nearby town, using Geographic Information Systems (GIS) software such as Google Earth can often provide a "bird's eye view" of the area terrain. Another helpful tool for determining whether an area is at risk is the California Floodplain Mapping website at [www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awarenes\\_floodplain\\_maps/](http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awarenes_floodplain_maps/).

Knowing where a HHP dam is located that may impact your home, business, or favorite recreational area is important. But knowing the boundaries of the "hazard area" also is important. State law requires dam owners to provide CalOES copies of inundation maps developed by civil engineers. Owners of some small and/or rural dams may be allowed to submit less detailed maps or none at all.

## MAKE CONTACT

Once you have identified the HHP dam of interest, you can determine the EAP status for that dam by contacting:

**Wendy Boemecke,**  
Emergency Services Coordinator  
California Office of Emergency Services  
3650 Schriever Ave., Mather, CA 95655  
Phone: (916) 845-8275  
Email: [Wendy.Boemecke@calema.ca.gov](mailto:Wendy.Boemecke@calema.ca.gov)

Another contact is the Emergency Management Director (EMD) of the county or city where the dam is situated. When EAPs are in process or have been completed, the EMD will be involved or have the EAP on file. Phone the county courthouse or check the CalOES EMDs list at <http://www.calema.ca.gov/RegionalOperations/Pages/Local-OES-Contacts.aspx>

If the dam owner is known, you may contact that person or office directly. Phone numbers and addresses of dam owners should be available through the DSOD or the EMD's office. Most dam owners are anxious to complete an EAP when they realize the importance for public safety and their own liability. You or an organization you know may even be able to help an owner with some of the detail work on an EAP.



An "incident" can quickly become an emergency requiring an EAP.