

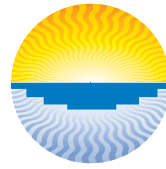
## WHAT IS AN INCIDENT EMERGENCY ACTION PLAN?

An IEAP is a plan of action to reduce potential property damage and loss of lives in an area affected by a dam failure. A complete IEAP 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.

Nearly 200 HHP dam owners in Indiana need to complete their IEAPs. No dam owner has to shoulder the burden of creating an IEAP alone. City and County Emergency Management Directors and engineers in the Water Division of the Indiana Department of Natural Resources (DNR) stand ready to partner with dam owners in helping them create IEAPs. Available resources include technical and emergency management expertise, along with state and national educational materials, IEAP forms and examples, and step-by-step guidelines.

IEAP 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 IEAP process, but the emergency responders are going to be the primary users of the IEAP. 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.

DNR dam safety engineers want to greatly increase the number of IEAPs for state-regulated dams over the next few years. DNR engineers will be working with dam owners to help them understand the importance of IEAPs, their content, procedures and approval processes.



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### KEY POINTS ABOUT IEAPs

- An IEAP 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).
- IEAPs 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 IEAPs.
- 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 IEAP will enhance its proper implementation.
- The IEAP 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 IEAP includes a notification flowchart with names and numbers of who will call whom and in what priority.
- IEAPs 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 IEAPs help maintain readiness.

### QUESTIONS OR COMMENTS

Phone toll-free 877-410-3551  
Email: [info@damsafetyaction.org](mailto:info@damsafetyaction.org)

# AN INCIDENT AND EMERGENCY ACTION PLAN BENEFITS DAM OWNERS AS WELL AS PEOPLE AT RISK



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An Incident and Emergency Action Plan (IEAP) includes procedures for warning those living, working or enjoying recreation below a dam. Local emergency managers may add evacuation routes.

### 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 Indiana, the owner of a High-Hazard Potential (HHP) or Class I dam has strong legal and social incentives to provide an Incident and Emergency Action Plan (IEAP). 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. The IEAP details the types of incidents that must be promptly addressed so they do not escalate into an emergency situation.

Considerable time and effort must be devoted to creating an IEAP, 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. Current dam safety laws and regulations in Indiana do not compel a HHP dam owner to provide an IEAP unless the dam is new construction. In the context of liability, however, the act of completing an IEAP 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 IEAP

*An IEAP takes time, focus, and dedication. The time is now. The focus is on saving lives. The dedication is to the safety of all Indianans.*

## GETTING STARTED

Indiana's dam safety law and the regulations that implement it specifically absolve the state from liability from damages caused by a dam failure. Some owners of HHP dams are simply not aware of what an IEAP 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 IEAP. Not true. Safety inspections and IEAPs are very different. Most dam owners are anxious to complete an IEAP, but many do not know how to get started or do not realize the urgency.

A typical form for an IEAP 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 IEAP on a HHP dam is a process that involves a teaming 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 IEAP team. Phone or stop by the Indiana Department of Natural Resources (DNR) Division of Water dam safety office in Indianapolis. They provide templates and forms to assist dam owners with IEAPs. These can be viewed at: <http://www.in.gov/dnr/water/2458.htm>. Dam safety engineers also have other information to help with IEAPs and dam safety. Dam owners may contact the dam safety office at:

Indiana Dept. of Natural Resources  
Division of Water  
402 W. Washington St. Rm W264  
Indianapolis, IN 46204  
Phone: (317) 232-4160  
Fax: (317) 233-4579  
Email: [kesmith@dnr.IN.gov](mailto:kesmith@dnr.IN.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 the dam owner should 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 office location. The EMD will know how and where to gather much of the additional IEAP information needed, other professionals who can be called upon for help, and precisely which details are most important to gather first. Working as an IEAP team, priorities can be established and a reasonable timetable for completion of the IEAP can be developed.

## DNR RESOURCES

The DNR Water Division's Dams & Levees website has several forms, checklists, and guidelines to assist dam owners with IEAPs. An IEAP form is available for use by dam owners. It helps ensure thoroughness and consistency in IEAPs across the state. Meanwhile DNR continues to provide by mail or online a number of documents, guides, and manuals for dam owners, including the templates for IEAPs. These also can be ordered by phone or downloaded from the website. Included are:

- Indiana Dam Safety Inspection Manual
- General Guidelines for New Dams & Improvements to Existing Dams in Indiana
- IC 14-27-7.5 Regulation of Dams
- 312 IAC Article 10.5 Regulation of Dams
- Incident and Emergency Action Plans
- IC 14-27-7 Dams, Dikes and Levees; Regulation Act
- Living With Dams: Know Your Risks

## NATIONAL RESOURCES

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

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

Following are just some of the materials available.

## ASDSO RESOURCES:

<http://www.damsafety.org>

The Emergency Action Planning resources and documents

ASDSO provides for dam owners include:

Guidelines and Flyers

- Owners Guidance Manual: Emergency Action Planning Chapter
- ASDSO Flyer on Emergency Action Planning

Emergency Action Planning Samples and Models

USDA NRCS Emergency Action Planning Guidance

- Fact Sheet on Preparing an 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](mailto:info@damsafety.org) • [www.damsafety.org](http://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 Indiana, contact:

Federal Emergency Management Agency  
536 South Clark Street  
Chicago, IL 60605  
Phone: (312) 408-5500

## 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/NDCSMC/EAP/EAP\\_factsheet.pdf](ftp://ftp-fc.sc.egov.usda.gov/NDCSMC/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 Indiana, contact:

USDA Natural Resources Conservation Service  
6013 Lakeside Boulevard  
Indianapolis, Indiana 46278-2933  
Phone: (317) 295-5801 FAX: 855-458-8767

