

Dam Safety

OWRB FACT SHEET

The OWRB ensures the safety of more than 4,700 jurisdictional size dams in the state, providing design standards and technical assistance for dam construction, repair, and maintenance. Oklahoma dams are assigned hazard classifications based on the downstream damage that would result from dam failure. Hazard classifications determine inspection schedules and other requirements.

Liability

Anyone who owns, operates, or maintains a dam is liable for some or all damages due to a dam's failure, even if an unsafe condition existed prior to a new dam owner's term of ownership. Thus, potential owners must carefully inspect the structural integrity of a dam prior to purchase and inspect, maintain, and repair the dam thereafter.

Dam Construction or Modification

Prior to construction or modification of a dam, plans and specifications must be reviewed and approved by the OWRB. An application may be unnecessary for constructing a dam that will be less than 25 feet in height above the stream bed and if the maximum storage impounded by the dam is less than 50 acre-feet of water, except when there are habitable structures below the dam.

If the dam is in a floodplain or within the Waters of the United States as defined by the Clean Water Act, which includes wetlands, a permit from the local floodplain administrator or U.S. Army Corps of Engineers may still be required regardless of dam and reservoir size. Before constructing or modifying a dam, contact the OWRB or consult a professional engineer to determine if you need to obtain a permit from the OWRB, Natural Resource Conservation Service, U.S. Army Corps of Engineers, local floodplain administrator, or other authority.

Dam Safety Inspections

The regular inspection of a dam is the heart of a proactive care and maintenance program. Technical inspections must be performed by professional engineers familiar with dam design and construction and should include structural safety assessments. For early detection of any developments that may be detrimental to the dam, maintenance inspections should be performed more frequently than technical inspections.

Downstream hazard verification inspections must also be performed to determine if there has been any construction downstream of the dam which could raise the

Dam Hazard Classifications and Inspection Requirements

High Hazard Potential	Failure risk includes probable loss of human life. Inspections are required annually by a registered professional engineer.
Significant Hazard Potential	Failure risk includes economic loss or disruption of lifeline facilities. Inspections are required every 3 years by a registered professional engineer.
Low Hazard Potential	Failure risk includes low economic loss. Inspections are required every 5 years.

dam's hazard potential classification. This has important implications for the dam owner because it could result in a change in how often the dam must be inspected and require structural modifications to the dam.

Emergency Action Plans

Each high hazard dam owner is responsible for developing an Emergency Action Plan (EAP) tailored specifically to that dam that identifies the dam break flood zone and assigns critical roles, including surveillance and notification. The EAP must include a critical contact list to protect downstream lives and property. A written EAP must be submitted and approved by the OWRB and subsequently filed with the local Emergency Management officials and first responders. For a more information, see [Emergency Action Plan Guidelines for High Hazard-Potential Dams](#).

Training

The OWRB coordinates periodic training sessions on dam safety and regulations for dam owners and engineers.

To subscribe to the dam safety newsletter or to find forms and course schedules, visit the OWRB website.

