



## Is Your Dam Above Homes, Highways, or Other Structures?

### Do you own or plan to build a dam above homes, highways, or other structures?

If you own or plan to build a dam, it's important to know whether the dam presents a hazard to the people and property downstream. A high hazard dam is any dam that impounds 50 acre-feet of water or more and could cause loss of life downstream in the event of a dam failure. "High-hazard" is not a description of the dam's condition. "High-hazard" refers to the potential for the loss of life downstream if the dam were to fail.

There are over 3,500 dams in Montana that impound 50 acre-feet of water or more. Of these dams, approximately 150 are classified as high-hazard.

### Montana's Dam Safety Law

In 1985, Montana became one of 48 states to adopt regulations for high-hazard dams. The Montana Dam Safety Act implements a permitting process requiring that construction, maintenance, and operation of high-hazard dams be conducted in a safe manner.

It is beneficial for a high-hazard dam to be in compliance with Montana's Dam Safety Act. If a high-hazard dam is permitted under the act, a dam owner is not, in the absence of negligence, liable for damages resulting from discharges from the dam or reservoir that

*continued...*



Montana's Dam Safety Law continued...

exceed the 100 year flow. This provision reduces the risk of liability to a high-hazard dam owner.

Exempt from the Dam Safety Act are:

- Dams that are owned by the federal government,
- Dams inspected by the Federal Energy Regulatory Commission,
- Dams included in a mine operating permit issued by the Montana Department of Environmental Quality,
- Dams associated with facilities certified under the Major Facility Siting Act.
- Private dams on federal property, including dams on U.S. Forest Service property.

These dams are already required to meet safety standards established by other state or federal law and are exempt to prevent instances of dual jurisdiction or conflicting standards.

## Hazard Classification

Construction of a new dam or alteration of an existing dam, with an impoundment capacity of 50 acre-feet or more, requires an application to the Department of Natural Resources and Conservation (DNRC) Dam Safety Program for a hazard classification. The **impoundment capacity** is measured to the maximum normal operating pool, which is usually the crest of the spillway. The requirements for hazard classification also apply to flood control structures that have the potential for impounding 50 acre-feet or more.



Construction Work on Deadman's Basin Dam

## Construction Permit

If determination is reached that a high-hazard potential exists downstream from a dam, a construction permit is necessary before construction.

**Construction** includes construction of a new high-hazard dam or major repair, alteration, enlargement, or removal of an existing high-hazard dam. An application for a construction permit must be accompanied by construction plans and specifications as well as an engineering design report.

The plans, specifications, and report must be prepared by a licensed professional engineer experienced in dam design and construction. Within 60 days of receiving a completed application, DNRC will issue or deny a construction permit. There is no fee associated with a construction permit application.

A construction permit is not required for performing minor and routine repairs, maintenance, or emergency repairs on a high-hazard facility.

The determination of hazard involves an evaluation of the area downstream from the dam that would be flooded in the event of dam failure. If the flood would have the potential to cause a loss of life, the dam is classified as a high-hazard structure. The hazard classification is based on the potential loss of life downstream; **it is not an assessment of the safety of the structure.** DNRC will make a hazard classification



Painted Rocks Dam

determination within 60 days after a complete application is received. The cost of the hazard classification determination is \$125.



## Operation Permit

It may be necessary to obtain an operation permit from DNRC if you own or plan to own a high-hazard dam. An operation permit application must include an operation plan and an engineer's inspection report. The permit is effective for a period of no longer than 5 years. After 5 years renewal of the permit is required. The **operation plan** consists of reservoir operation procedures, maintenance procedures for the dam and appurtenant works, and the emergency procedures. The plan must be updated whenever the permit is renewed. Preparation of and adherence to the plan will aid in the safe operation and maintenance of the high-hazard dam. A more detailed description of an operation plan can be

found in Administrative Rules of Montana Chapter 36.14.101-803. A sample of an operation plan is available from DNRC.

A periodic inspection of the high-hazard dam is necessary when the operation permit is first applied for or renewed. The minimum frequency for inspection is stated in the operation permit and is at least once every five years. The inspection must be arranged by the dam owner and conducted by a licensed professional engineer. A report of the inspection must accompany the permit application.

If, after reviewing the application, operation plan, and inspection

report, DNRC determines that the high-hazard dam meets or exceeds minimum safety standards and can be safely operated and maintained, an operation permit is issued. There is no fee associated with an operation permit application. DNRC will issue or deny the permit within 90 days after receiving a complete application.

## Civil Penalty

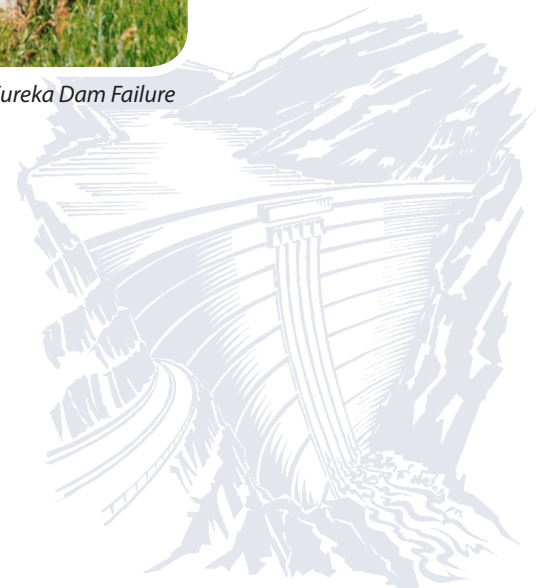
A civil Penalty of up to \$1,000 per day can be assessed against a dam owner, for non-compliance with the Montana Dam Safety Act.

## Emergency

If a dam is in danger of failing due to structural deficiencies or severe flood conditions and poses a life threatening emergency, a dam owner may proceed with the necessary repairs or breaching without the previously described construction permit. ***DNCR must be notified immediately of any proposed emergency repairs or breaching.*** If a dam owner fails to act, DNRC may take any action necessary to safeguard downstream life and property. Costs incurred by DNRC's action during an emergency must be paid by the owner of the dam.



Eureka Dam Failure



## Complaints - Unsafe Dam or Reservoir

If you have a concern that life or property is being endangered by a dam, regardless of the capacity of the reservoir, a complaint may be filed by submitting an affidavit to DNRC. DNRC may then inspect or order an inspection of the dam unless the data, records, and inspection reports are adequate to determine that the complaint has no merit.

If the inspection discloses defects in the dam or reservoir that, in the judgment of DNRC, constitute an immediate hazard to life or property, DNRC can order the reservoir be drained, limiting its use, or taking other steps to ensure the safety of the dam. DNRC may require the owner to pay all or part of the inspection expenses.



*Toston Dam*



*Ackley Dam*

Montana Department of  
Natural Resources and Conservation  
Water Resource Division  
Dam Safety Program  
1424 9th Avenue  
PO Box 201601  
Helena, MT 59620-1601  
406-444-6613



## Laws, Rules and Forms

For copies of the Montana Dam Safety Act, the administrative rules, or application forms, you may write or call DNRC at the address below.

## Other Information

Numerous publications are available concerning inspection guidelines, emergency and early warning plans, and other areas that may be of interest or assistance to owners of dams. Contact DNRC for more information.

