

# Fact Sheet:



Alaska Department of  
**NATURAL  
RESOURCES**

Division of Mining & Water Management • October 1996

## Dam Safety In Alaska

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### **Who Is Ultimately Responsible For The Safety Of Dams In Alaska?**

Old English common law, on which our legal system is based, holds that the capture of water in itself is a hazardous activity. Therefore, whoever captures the water is liable for any damages caused. In almost all cases, the dam owner is responsible. However, under state law, the Department of Natural Resources oversees most dams in Alaska to ensure that safety standards are met.

### **What State Dam Safety Statutes And Regulations Are In Effect?**

The statutory basis for the dam safety program, AS 46.17 went into effect in May 1987. 11 AAC 93, Article 3, gives the regulatory requirements for activities related to dam safety; and 11 AAC 05.010(a)(8)(I)-(K) states the fees required for dam safety applications.

### **What Dams Are Covered By State Dam Safety Statutes And Regulations?**

- ▶ Any dam that impounds at least 50 acre-feet of water and is at least 10 feet high;
- ▶ Any dam that is at least 20 feet in height, regardless of the amount of water impounded;
- ▶ Any dam that the department determines through an inspection to pose a threat to lives and property.

State statutes do not apply to federally owned or operated dams, or dams that are regulated by the Federal Energy Regulatory Commission (FERC), such as those used for hydro-electric power.

### **How Is The Height Of A Dam, And The Volume Of Water Impounded By A Dam, Measured?**

The height of the dam is measured from its lowest point, which is found at either the upstream or downstream toe of the dam, to the crest of the dam. Water volume is measured by determining the acre-foot volume of water in the reservoir when the water is at the crest of the dam. An acre-foot of water is equivalent of one foot of water covering one acre.

### **How Does The Department Determine That A Dam Posed A Threat To Lives And Property?**

The department rates dams in a "hazard potential classification" which is based on the threat to lives and property the dam would pose if the dam were to fail. The hazard potential classification is not an indicator of how safe or unsafe the dam is. Under Alaska regulations dams are classified into three hazard potential classifications:

- ▶ Class I: Failure would result in loss of life, a serious health hazard, or damage to high value property.
- ▶ Class II: Failure would result in the loss of high value property, damage to major transportation facilities or public utilities, or damage to important salmon spawning habitat.
- ▶ Class III: Failure would result in damage to rural land, buildings, and local roads.

### **What Are The Requirements To Construct, Modify, Remove, Or Abandon A Dam?**

Any person who constructs, modifies, removes, or abandons a dam must receive prior approval from the department. The regulation governing such activity, 11 AAC 93.171, requires:

- ▶ Submitting engineering reports, plans, and specifications for the dam.
- ▶ Submitting the fee required by 11 AAC 05.010(a)(8)(J), which is based on the projected cost of the activity, but is not less than \$500.

A Certificate of Approval must be issued by the department before the activity can proceed. If construction or modification is involved, the department must approve as-built plans and a completion report before the dam owner will be issued a Certificate of Approval to operate the dam. Once the certificate is issued, the dam owner may fill the reservoir and operate the dam.

### **Is Dam Inspection Required?**

Periodic dam safety inspections must be performed on dams at intervals based on the hazard potential classification. Class I and Class II dams must be inspected every three years and Class III dams every five years. Owners are responsible for the inspections. A qualified engineer, approved in advance by the department, must be used. The inspection is conducted according to guidelines issued by the department. The inspection report must be approved by the department and the specified number of copies of the final report submitted.

### **What Happens If The Owner Does Not Perform The Required Inspection?**

The department will perform the inspection under 11 AAC 93.159(e) and will require the owner to reimburse the state for its costs incurred in making the inspection.

### **Does The Department Have The Authority To Inspect Dams That It Believes To Be Unsafe And To Take Emergency Action If Necessary?**

If the department determines a dam is likely to be unsafe, it has the right to inspect a dam at any time under 11 AAC 93.161. The owner is responsible for reimbursing the state for these inspections. If the dam is determined to be unsafe and the owner does not voluntarily comply with the department's order to

correct the condition, the department may take action to protect lives and property, including taking supervisory control of the dam.

### **What Records Is The Owner Of A Dam Required To Maintain?**

The owner of a dam must maintain on file all records pertaining to the safety of the dam. These records include:

- ▶ Construction plans and specifications
- ▶ Engineering reports
- ▶ As-built plans
- ▶ Completion reports
- ▶ Construction inspection reports
- ▶ Material test analyses
- ▶ Reports of routine and periodic dam safety inspection

The department may inspect these records at any time during the owner's regular business hours and, if denied access, may seek an administrative subpoena to require the owner to produce the records.

### **Is It Illegal To Make A False Report Concerning The Condition Of A Dam?**

Yes. Under AS 11.56.800(a)(4) it is illegal to knowingly make a false report to the department concerning the condition of a dam or reservoir.

*For more information on the dam safety program and to submit applications for construction, modification, removal, or abandonment of dams, contact:*

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