Legal Liability of Dam Ownership in Montana

Dam Safety Program
Montana Water Resources Division

MONTANA DNRC
The Montana Department of Natural Resources & Conservation

Cover Photo: Ruby Dam Spillway, Madison Co. prior to rehabilitation

Fact or Fiction: Common Beliefs about Liability & Dam Ownership

FICTION	FACT
Dam Safety laws only apply to large dams.	State law is clear - persons constructing dams are required to build them in a substantial manner so that they will safely and securely hold water – regardless of size.
Small reservoirs don't contain enough water to cause damage.	Even if there are no houses downstream, dams can cause a surprising amount of damage when they fail, including impact to county roads and utilities, environmental damages, not to mention loss of the dam which can be expensive to replace. They also create an expense to local county officials who always get involved when a dam fails – even small ones.
It is not my dam - the person who built the dam and leases my property is responsible.	Anyone that owns, controls or benefits from the dam may be responsible. For example, water right holders or members of homeowner's associations may share responsibility.
If a large rainstorm or earthquake fails a dam, the "Act of God" defense will shield me from liability.	Record breaking storms and earthquakes, though rare should be expected. Remember the June 1964 storm in Northwestern Montana? Remember the 1959 Hebgen Lake earthquake? It is best to design dams that can withstand storms and are stable during ground shaking.
Hiring an engineer is an unnecessary expense for a small dam.	The expense of hiring an engineer can pay for itself many times over: 1) An engineer may detect hidden problems that are relatively inexpensive to fix if caught early; and 2) The "*Standard of Care*" for every dam is to periodically obtain an inspection by a licensed engineer. Meeting the *Standard of Care* demonstrates non negligence.

Read on to learn more about:

The intent of the 1985 lawmakers in passing the Montana's Dam Safety Act and how the act protects the conscientious dam owner

Liability - how it is defined, the different types of liability and what can be done to minimize liability

Selected Montana Supreme Court Cases on the issue of Liability for Dam Failure (1895 to 1990)

The Four Elements of Negligence and steps that can be taken to avoid negligence

MONTANA'S DAM SAFETY ACT

MCA Title 85 Chapter 15

There are three primary intents of the act:

1. ***NOT RESTRICT OR PREVENT WATER STORAGE DEVELOPMENT***
2. ***PREVENT LOSS OF LIFE FROM DAM FAILURE***
3. ***DAM OWNER HAS RESPONSIBILITY***

The Dam Safety Act was passed by the 1985 legislature. The law was introduced following the failure of the Teton Dam, by request of the Montana Water Resources Association, a group of dam owners and practicing engineers.

Ruby Dam, Madison Co.

Montana's Dam Safety Act

MCA Title 85 Chapter 15

INTENT # 1. NOT RESTRICT OR PREVENT WATER STORAGE DEVELOPMENT

Montana Law Reads:	In Other Words…….
85-15-115. Purpose. *(1) The legislature finds that dams provide a variety of benefits to the state of Montana…… .. ……..Additionally, dams play a crucial role in maintaining the vitality of Montana's economy. The state therefore has a legitimate and compelling interest in encouraging the construction of dams that conform to the water storage policy.*	***Water storage is important to Montana and the legislature recognizes this.***
85-15-115 (1) continued *The legislature further finds that one impediment to the construction of new dams is the potential liability associated with dam construction and operation. The legislature understands the inherent risks to public safety associated with dam construction and operation but finds that compliance with the Montana Dam Safety Act reduces those risks to an acceptable level.*	***The Dam Safety Act is a legal "recipe" to follow to minimize liability. The legislature does not want liability concerns to be an impediment to the construction or continued operation of dams and reservoirs in Montana.***

INTENT # 2. PREVENT LOSS OF LIFE FROM DAM FAILURE

Montana Law Reads	In Other Words…….
85-15-209. High-hazard dam -- determination. *A person proposing to construct a dam or reservoir with an impounding capacity of 50 acre-feet or more measured at the maximum normal operating pool shall make application to the department for a determination of whether the dam or reservoir is a high-hazard dam.*	***Dam owners have a responsibility to determine if their dam has potential to cause loss of life downstream.***
85-15-210. Preparation and approval of plans….(2)(a) *plans and specifications for the proposed construction, prepared by or under the direction of an engineer experienced in dam design and construction.*	***If you have potential for loss of life downstream, you must utilize the services of a qualified engineer when repairing or modifying your dam***
85-15-213. ***Periodic Inspections after construction*** *(1) (a) A high-hazard dam, whether or not previously permitted by the department, must be inspected as often as considered necessary by the department, but at least once every 5 years, in order to ensure the continued safe operation of the high-hazard dam.*	***This law requires a qualified engineer's inspection every five years at a minimum on "high hazard dams".***

MONTANA'S DAM SAFETY ACT

MCA Title 85 Chapter 15

MONTANA'S DAM SAFETY ACT

LIABILITY

SELECTED SUPREME COURT CASES

FOUR ELEMENTS OF NEGLIGENCE

INTENT # 3. DAM OWNER HAS RESPONSIBILITY

Montana Law	In Other Words…….
85-15-213. Periodic inspections after construction. *3) The owner is responsible for inspections required under this section.*	***The dam owner is responsible for completing inspections. (In other states, the State completes the inspections.)***
85-15-212. Operating Permit *(1) An operation plan must set forth at a minimum: a) a reservoir operation procedure; (b) a maintenance procedure for the high-hazard dam and appurtenant works; and (c) emergency procedures and warning plans.*	***This law sets the "standard of care" – which includes having a plan to complete regular maintenance and warn downstream in case of an emergency.***
85-15-305 *(2) The owner of a dam or reservoir that has been permitted by the department in accordance with this chapter or that was designed and constructed under the supervision of an engineer and properly maintained is, in the absence of negligence, not liable for damages to person or property resulting from flows of water from failure of the dam or reservoir.*	***There is liability protection for those who follow the "recipe" in the Dam Safety Act.*** 

Liability

Strict Liability

- Liability is imposed regardless of fault
- Based on abnormally dangerous or ultra-hazardous activities
- Often applied in dam failure litigation

Negligence

Failure to exercise reasonable care under the circumstances.

Exercise reasonable care by complying with Dam Safety Act

Whether or not strict liability would actually be imposed for a dam failure in Montana is questionable given the State's policy favoring dams. But the question may be moot because failure to comply with the act is likely to be considered negligence.

Montana case law indicates that a dam owner can avoid liability by complying with the rules and standards of the Dam Safety Act.

To avoid negligence a dam owner must:

1. ***Determine whether or not the dam is safe and presents a danger to downstream persons or property; and***
2. ***Eliminate the unsafe condition*.**

The phrase **"Standard of Care"** is frequently used when discussing dam liability. "**Standard of Care**" is defined as the "Watchfulness, attention, caution and prudence that a reasonable person in the circumstances would exercise". Failure to meet the **standard** is negligence.

SELECTED SUPREME COURT CASES

Montana law—as early as 1895—provided that persons using or constructing dams are required to build them in a substantial manner so that they will safely and securely hold water.

Hollenback v. Dingell, 16 Mont. 335, (1895)

1. **Irrigation dam breaks causing damage:**

   "Dam broke away, and the body of water behind it ran down upon plaintiff's farm, washing away the soil, destroying the buildings, tearing up his fences and crops, and generally doing him great damage. The jury awarded the plaintiff damages in the sum of $1,200."

2. **On appeal, defendant alleged contributory negligence by plaintiff!**

   There was a statutory process that would have allowed plaintiff to implement court proceedings to have the dam examined, declared a nuisance, and have the nuisance abated. Defendant argued plaintiff negligent for not using that process.

3. **Court rejects appeal.**

Takeaway: It is the dam owners' responsibility to know whether their dam is unsafe and to make the dam safe if it is not.

SELECTED SUPREME COURT CASES

The "Act of God" is defined as "Eventuality outside of human contemplation, unaccompanied by human acts of negligence." "Act of God" is not a defense if the dam contributes to the ultimate damage.

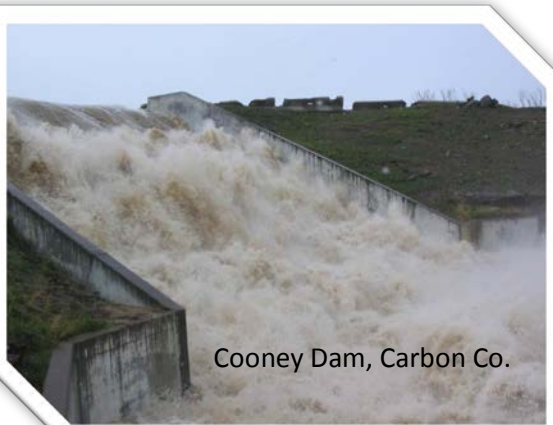
Walsh v. East Butte Copper Mining Co. , 66 Mont 592 (1923)

1. **A dam constructed for a settling pond at a smelter failed during heavy rainfall in vicinity of smelter**.

   "The plaintiff's apartments on the lower floor were flooded, the basement filled with water, and about 4 feet of sediment, consisting of tailings and slime, were deposited therein. Portions of the broken dam and its contents, consisting of stable manure, gravel, and tailings, were lodged upon plaintiff's yards and surrounding properties."

2. **The fact that the dam only failed after an unprecedented storm (or act of God) does not lessen liability.**

   "Even if damages to plaintiff's premises were occasioned by a combination of defendant's negligent construction and maintenance of an impounding dam and an unprecedented storm, the defendant is liable if his alleged negligence was a proximate cause of the injury; and if the act of God alone would not have produced the injury…."



Cooney Dam, Carbon Co.

Takeaway: Construct dams to withstand big storms.

SELECTED SUPREME COURT CASES

"Reasonable care" includes an obligation to investigate and evaluate the dam and the hazard to downstream people and property.

Richland County v. Anderson, 129 Mont. 559 (1955)

1. **Owner in possession of dam was sued for damages when dam broke taking out a bridge on a county road. However, the owner in possession had not constructed the dam and claimed she did not know the dam was unsafe.**
2. **It is negligent not to be aware that your dam is unsafe.**

   "she would have known of the dangerous condition thus created by these structures and of the risk of a break involving injury to others, including the plaintiff county, if she had a reasonable inspection made for her by a person skilled in such matters."

Takeaway: Have your dam inspected by a qualified engineer.

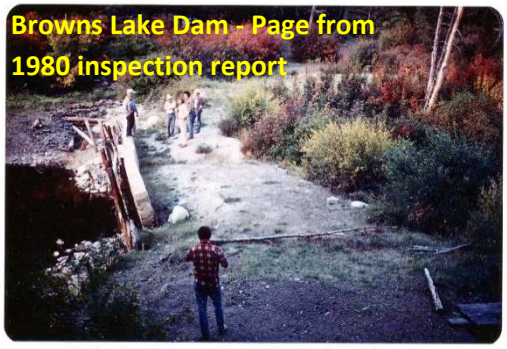
7 Tree dam – Garfield Co, failed May, 2010

SELECTED SUPREME COURT CASES

Dam owners or those that either control or benefit from the dam may all be held liable for the full extent of damages.

Burk Ranches, Inc. v. State of Montana, 242 Mont. 300 (1990)

1. **Browns Lake Reservoir and surrounding land was owned as recreation site by DFWP. The downstream water users operated and had exclusive control over the head gate for irrigation purpose. The dam was determined to be hazardous and in poor condition by engineers in an inspection completed in 1980. Neither DFWP nor the water users took responsibility for maintaining dam. Both believed the other was responsible. The dam failed destroying several bridges along with head gates, irrigation ditches, fences, corrals and fields owned by ranches downstream.**
2. **Court holds the State and the water users jointly and severally liable for the damages.**



Browns Lake Dam - Page from 1980 inspection report

Photo 3 - Upstream face of the dam and the dam crest. Note the slope of the wall and the trees and bushes on the downstream face.

Browns Lake Dam following failure

Takeaway: Even if you don't own the dam per se, if you control or have an interest in the dam don't assume you are not liable. Determine who may be liable and work together to make dam safe.

Four Elements of Negligence

TO BE HELD NEGLIGENT FOR YOUR ACTIONS THE FOLLOWING FOUR ELEMENTS MUST BE PRESENT:

1. You have a duty
2. There was a breach of that duty
3. Your actions are a cause of the problem
4. Damages were incurred

Negligence Element #1- You have a duty

- To know what happens below your dam should your dam fail
- Meet the "Standard of Care" (periodic engineer inspections, annual owner inspections, keep up on maintenance, follow engineer's advice)
- Meet professional / industry standards and follow regulations

Engineers use dam break models to estimate the area likely to be flooded should a dam fail. These models take into account reservoir capacity, dam height and characteristics of downstream channel.

Downstream Hazard Assessments for Small Dams

The "**Standard of Care**" nationwide is to know what happens below your dam should it fail. If your dam is over 50 acre feet in capacity, you should apply for a downstream hazard classification. What if your dam is under 50 acre feet? You still should know what hazards are at risk below your dam. It is possible to estimate the dam breach flood area using a few simplifying assumptions and making some basic calculations. For information and guidance, please refer to the Small Dam Hazard Assessment Inventory at http://dnrc.mt.gov/divisions/water/operations/dam-safety/dam-owners .

Four Elements of Negligence

Negligence Element #2 – There was a breach of that duty

Breach of duty may include:

- Not knowing your downstream hazard classification
- Lack of maintenance
- No inspections or ignoring inspector recommendations
- Modifying your dam without engineering advice
- Failing to get proper regulatory permits
- Not having an emergency action plan (If loss of life is possible)

Negligence Element #3 – Your actions are a cause of the problem

Even if the tragedy was caused by an unforeseeable or uncontrollable act of nature, liability may still result if human acts or omissions coalesce with nature to cause damage

Example: Rodent holes on the upstream face are a common maintenance problem for dam owners that must be regularly addressed. The holes are often found just above the normal water level. The holes can be inundated during a large storm causing a "piping" dam failure. If a dam with upstream rodent holes fails during a storm, an argument could be made there was a breach of duty. Obviously, the large storm event is the primary cause of the failure. However, the rodent holes could be a contributory cause of the failure. This situation has occurred in Montana.

Four Elements of Negligence

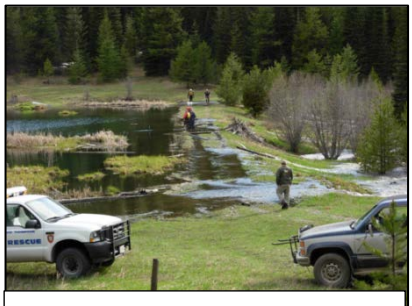
Negligence Element #4 – Damages were incurred

- Loss of life
- Injuries
- Emotional distress
- Disaster relief
- Revenue losses
- Business interruption
- Clean up and recovery
- Environmental damages
- Infrastructure losses
- Irrigation and crop losses
- Utility services

Hoover Creek Dam – overtopped busy railroad – caused major (and expensive) delays .

Eureka Wastewater Pond Dam – damage to neighbors downstream agricultural land; contaminants into Kootenai River.

Sage Creek Dam – Required constant attention from Petroleum County Sheriff's office to keep downstream roads closed.



Miller Dam – Impact and expense to Lincoln County personnel in responding to incident.

FOUR ELEMENTS OF NEGLIGENCE

Case Study: Ka Loko Reservoir, Kauai, Hawaii

- Failed March 2006, 5:00 am following a large rain event.
- Seven people in homes located below the dam at the time of failure died.
- There was extensive property damage as the flood wave made its way to the ocean, including Kauai's main highway.
- The dam was classified as "low hazard" by the Corp of Engineers in 1972, prior to downstream development.
- Spillway was reported to have been covered with fill causing dam to overtop.
- The 118 year old dam had not been inspected recently.

- Property damage lawsuits were filed against the dam owner, the state, the county and the private irrigation company that ran the reservoir. The lawsuits were settled for an estimated $25 million.
- The dam owner was indicted on 7 counts of manslaughter and sentenced to 7 months in prison in Oct 2014.

All four elements of negligence are present:

1. The Dam owner had a **DUTY** to know their downstream hazard classification, conduct inspections and complete maintenance.
2. **THIS DUTY WAS BREACHED** by not having an accurate hazard classification, by modifying the dam without engineering oversight, by failing to conduct regular inspections and by neglecting maintenance.
3. Although a large rain event caused the failure, the actions of the dam owner by placing fill into the spillway was a contributory **CAUSE.**
4. Extensive **DAMAGE** and loss of life occurred.

KEY TAKEAWAYS

- The Dam Safety Act is a handy recipe provided by lawmakers for demonstrating non negligence, regardless of dam size or regulatory agency oversight. Exercise reasonable care by complying.
- Know the condition of your dam.
  - Conduct annual dam owner inspections.
  - Conduct periodic engineer inspections.
- Know your downstream hazard classification.
  - Keep aware of downstream development.
- Enlist the services of an engineer when doing repairs or modifications to your dam.
- Keep up on maintenance.
- Don't assume that others are taking responsibility.
- Have an emergency action plan in place. Keep it updated.
- Document everything associated with your activities at the dam.
- *Remember - engineers are less expensive than attorneys. It is far more cost effective to spend time on engineering up front, instead of attorneys later.*

For more information, guidance and contacts, please visit the Montana Dam Safety Website at:

http://dnrc.mt.gov/divisions/water/operations/dam-safety

Photo credits:

Miller Lake – Charlie Comer US Army Corp of Engineers; Ka Loko – State of Hawaii; 7 Tree Dam -Brent McRae, former Garfield Co commissioner; Remainder – DNRC staff.