

Resource Contact: Dam Safety Office

Effective Date: 06-01-93

References: RCW 43.21A.064  
RCW 86.16.035  
RCW 90.03.350  
Chapter 173-175 WAC

Revised: 07-01-1999

**MULTIPLE SMALL DAMS IN SERIES**

**POLICY STATEMENT:**

Applicability of dam safety statutes, rules and policies to multiple small dams in a series on a watercourse, whether owned by a single party, or separately owned, where one or more of the dams are less than 10 acre-feet in storage capacity, is governed by one of four cases:

***Case 1 - Low Downstream Hazard Setting - All dams store less than 10 acre-feet***

A dam with a low downstream hazard which stores less than 10 acre-feet of water at dam crest elevation is not subject to dam safety statutes, rules and policies even when the dam is one of a series of dams on a watercourse where cumulatively, the group of dams store more than 10 acre-feet. (See also POL 5105 regarding dams less than 6 feet in height)

In the case of multi-cell waste storage lagoons, where each individual cell stores less than 10 acre-feet, but the total volume exceeds 10 acre-feet, an exemption from WAC 173-175 will be granted by the DSO only if all of the following conditions are met.

1. The embankments surrounding the cells must have the same crest elevation, and
2. The cells cannot be hydraulically connected by any low level pipe(s), unless the pipe is provided with some sort of control valve, and
3. The lagoon must have a low downstream hazard classification.

***Case 2 - Low Downstream Hazard Setting - One or more small dams in a series store less than 10 acre-feet***

Those dams which: have low downstream hazard settings; are elements of a series of dams on a watercourse; and which store less than 10 acre-feet of water; are not subject to dam safety statutes, rules and policies.

Those dams which store greater than 10 acre-feet at dam crest elevation are subject to dam safety statutes, rules and policies (WAC 173-175-020).

***Case 3 - Significant or High Downstream Hazard Setting - One or more small dams in a series store less than 10 acre-feet***

In the situation where the failure of one or more small dams in series (less than 10 acre-feet in storage capacity) could, by itself or by failure of other dams, pose a significant threat to human life, the Dam Safety unit supervisor will make a judgement to determine

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which dams of the series are to be subject to dam safety statutes, rules and policies. The controlling factor in that decision will be the need to reasonably assure safety to human life.

If a project proponent or opponent disagrees with the DSO downstream hazard classification for the project, as described by WAC 173-175-130(4g), the burden of proof in changing the classification will be on the project proponent or opponent.

DISCUSSION:

Multiple small dams in a series pose a variety of problems in applying the 10 acre-foot jurisdictional threshold criteria.

In accordance with RCW 90.03.350, WAC 173-175-020(1) and POL 5102, individual dams which store less than 10 acre-feet of water are exempt from dam safety statutes, rules and policies.

However, there are situations where small dams constructed in a series or in a multi-cell lagoon configuration can cumulatively store greater than 10 acre-feet of water and pose a hazard to human health or safety.

This policy is intended to provide consistency of application for multiple dams while focusing on the primary statutory directive - to reasonably secure safety to human life. In the situation (Case 3) where a dam failure or multiple failures would pose a significant threat to human life, the DSO supervisor has authority to determine applicability of dam safety statutes, rules and policies which are in the best interests of public safety.

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**Special Note:** These policies and procedures are used to guide and ensure consistency among water resources program staff in the administration of laws and regulations. These policies and procedures are not formal administrative regulations that have been adopted through a rule-making process. In some cases, the policies may not reflect subsequent changes in statutory law or judicial findings, but they are indicative of the department's practices and interpretations of laws and regulations at the time they are adopted. If you have any questions regarding a policy or procedure, please contact the department.