

Timeline of Oroville Dam crisis, February 2017

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Oroville Dam normal operations

1. The lake level is controlled using the main spillway gate, which releases water down the concrete spillway to get to the river below.
2. The emergency spillway, which has a 30 ft (9 m) high concrete wall at the top of a hill, is unused.



2005: Upgrade proposal rejected

Despite concerns that the emergency spillway is vulnerable to erosion, a \$100 million request by community groups to upgrade it to a concrete-lined auxiliary spillway is rejected by the federal regulators.



7 Feb 2017: Main spillway fails

Craters appear in the main spillway. To avoid increasing the damage to the spillway, water releases are slowed allowing the lake to rise.



11 Feb 2017: Emergency spillway used

Water flows over the emergency spillway causing erosion and damage. This is by design and prevents water going over the top of the main dam. However the ground erodes faster than expected.



ersion 3-February 28, 2017

13 Feb 2017: Repairs made

Rocks and concrete (1) are placed under the emergency spillway weir to repair erosion damage (2). The release of water into the main spillway is increased, to lower the lake in preparation for more rain. This erodes the adjacent hillside considerably, generating a debris dam (3) that blocks the river and forces the closure of the hydroelectric plant.



Potential risks

While the main 770 ft (230 m) dam is not threatened, if the erosion on *either* spillway reaches the top, it would cause the weir or gate (respectively) to collapse, causing a large uncontrolled water release and life-threatening floods.



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Source: Wikipedia

https://en.wikipedia.org/wiki/Oroville_Dam_crisis